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# TAPPI Forms Lake States Section

## Technical Men at Well Attended Meeting at Menasha, Wis. Form Local Division of the Technical Association of the Pulp and Paper Industry—G. K. Hill, Technical Director of the Gilbert Paper Co. Is Chosen Chairman of New Section — Secretary Macdonald Tells of TAPPI Progress

[FROM OUR REGULAR CORRESPONDENT]

MENASHA, Wis., October 20, 1930.—About one hundred members of the Technical Association of the Pulp and Paper Industry of Wisconsin and the upper penninsula of Michigan gathered together at the Hotel Menasha, Menasha, on Friday evening, October 17 to officially organize the second local section of the Technical Association, the first being the very successful Pacific Section.

Following a delightful dinner temporary chairman, G. K. Hill, technical director of the Gilbert Paper Company of Menasha called upon national executive committeemen, Allen Abrams and Joseph H. Slater of TAPPI to speak concerning their impressions of the probable success of such a section. Both of these men were high in praise of the initiative shown by the local members in launching such an enterprise. R. G. Macdonald, secretary of the Technical Association was next called upon to speak.

### Historical Background of TAPPI

Secretary Macdonald outlined the historical background of the association and pointed out that in the sixteen years of the association's existence it has grown from a small group that could gather around a table and frankly discuss technical problems relating to the manufacture of pulp and paper until it is now a body of nearly 1,200 members and should soon be nearly twice as big. This group was shown to consist of executives, superintendents, engineers, chemists and consultants, a well balanced organization that is contributing much to the manufacturing well being of the industry.

In the period of the association's existence it was made evident that TAPPI has done much to focus attention on important technical problems and in addition to studying problems such as waste utilization, testing methods, paper drying and others has in particular brought much of the most important pulp and paper making literature into being. With the Canadian association it has prepared and kept up to date the five standard text books of pulp and paper manufacture. It has published ten or more pages weekly of articles of value over a period of many years in the PAPER TRADE JOURNAL as well as such books as the "Bibliography of Paper Making, 1900-1928," "Chemistry of the Sulphite Process," "Paper Testing Methods," "Papermaking Materials," "Technical Association Papers I to XIII" and the "TAPPI Special Reports 1-34." As a local section Secretary Macdonald indicated that its success will depend on the continuous high calibre of its leadership and meetings.

### Election of Officers

The election of officers followed and G. K. Hill was unanimously elected chairman. Otto Kress, director of the Institute of Paper Chemistry was selected as vice-chairman, George Hrubesky of the John Strange Paper Company, secretary, and T. C. Bentzen of the Whiting-Plover Paper Company and Allen Abrams of the Marathon Paper Mills were elected as executive committeemen of the section.

The bylaws of the section were next adopted, each article being voted on by those present. After considerable discussion and debate it was finally decided to name the section the Lakes States Section to include the area designated by the Forest Service which includes Wisconsin, Minnesota and the northern penninsula of Michigan. The program committee was next appointed by Chairman Hill. This consists of Otto Kress, chairman, S. D. Wells, of Nekoosa-Edwards Paper Co.; N. H. Foley, of Marathon Paper Mills; C. K. Boyer, of Consolidated Water Power & Paper Co., and J. A. Standl, of Thilmany. Pulp and Paper Company. N. H. Foley was appointed chairman of the publicity committee.

### Chlorine for Slime Prevention

O. T. Birkeness, of Wallace & Tiernan Company, read a paper entitled "The Use of Chlorine for Slime Prevention" which was unusually interesting and was followed by a spirited discussion by many present.

It was the opinion of most of those present that the Section having made such a successful start should become a large and useful body.

### Among Those Present

C. E. Curran, in charge pulp and paper; E. R. Schafer, associate engineer; R. H. Doughty, assistant engineer; J. S. Martin, assistant engineer; M. Hemig, chemist; F. E. Simmonds, assistant chemist; C. E. Hrubesky, assistant chemist; E. L. Keller, junior chemist; C. Seborg, junior chemist and J. N. McGovern, junior chemist, of the Forest Products Laboratory.

Otto Kress, director; E. L. Foreman, fellow; M. D. Reuben, student; E. R. Laughlin, student; R. L. Davis, student and H. Bialkowsky, student, of the Institute of Paper Chemistry.

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# Pacific Coast Section of Tappi Meets

## C. W. Morden Is Elected Chairman of Local Division of the Technical Association of the Pulp and Paper Industry—Meeting Is Attended by M. A. Krimmel, National President Who Makes Inspiring Address

[FROM OUR REGULAR CORRESPONDENT]

PORTLAND, Ore., October 18, 1930.—C. W. Morden, Portland, was elected chairman of the Pacific Coast Section of TAPPI at the semi-annual meeting held in the Multanomah hotel October 11. I. H. Andrews of the Powell River Company, Powell River, B. C. was made vice-chairman, and Myron Black of the Inland Empire Paper company, Millwood, Wash., was elected secretary-treasurer. The next meeting will be held at Everett, some time in April, 1931.

Among important speakers at the Portland meeting were M. A. Krimmel, Hammermill Paper Company, Erie, Pa., President of TAPPI, and B. W. Scribner, chief of the paper section, of the Bureau of Standards.

### M. A. Krimmel, National President, Speaks

Mr. Krimmel explained that the national association was striving seriously to make the organization of greater practical benefit to each respective section of the country.

"In order to get service from your own group, you must also give service by co-operating in every possible way," the speaker advised, "and if each group is to get the highest benefit from membership each committee must respond with information and research reports or any other means of helping as requested."

An important phase is the reorganization of committees to suit the needs of the individual or special group, rather than having sectional organizations too closely standardized, Mr. Krimmel pointed out.

Mr. Krimmel spoke very hopefully of the future in organization work and answered many questions from time to time on various problems and discussions that arose on the program. He urged that western TAPPI members get down and talk over their own special problems, try to determine the wisest solution and then submit their findings to the national association which would be able to contribute further suggestions and helpful ideas.

"Officers of TAPPI feel that the Pacific Coast section is a vital part of the national organization and that the west coast territory may give as well as receive fresh plans and solutions of common problems," said Mr. Krimmel. He pointed out that competition is keen every where and that technical men hold considerable power to swing the industry along progressive and successful lines. Tact is needed in dealing with situations as well as scientific research.

Active members should exert so much effort in making the local groups essential that what these meetings offer will become so valuable that all will want to attend.

Mr. Krimmel said he had received some wonderful impressions of the west on his recent trip and that he felt there would be a wider spirit of understanding and cooperation if more of the eastern men could visit northwest plants and meet western men on their own grounds, studying methods and problems and making first hand observations.

### B. W. Scribner on "Permanency of Paper"

B. W. Scribner of the United States Bureau of Standards, took for his general topic, "Permanency of Paper." His talk was based on a study of newspapers in the New York Public Library. He reported having examined copies of the *Oregonian*, Portland's only morning newspaper, the only copies noted being those of about 20 years back, and these had been found in good condition.

The data obtained by this analysis of old newspapers gave evidence of the fact that well purified fibers were superior in permanent qualities to those of crude or partially refined fibers, whether made from rags, straw, esparto grass, or wood.

Mr. Scribner's paper was a comprehensive treatise on the subject under consideration and he answered numerous questions on his topic later in the session.

### Report of Committees

The afternoon session was given over to reports of committees, and these reports were emphasized as of prime importance not only in this meeting but in all future meetings. R. S. Wertheimer of the Longview Fiber company, who presided as chairman of the meeting, urged that complete reports in all detail be given by each chairman hereafter. These reports are to be regarded as a major part of the local programs of TAPPI and during the period between each semi-annual meeting each respective committee is expected to give some necessary time and thought to consideration of the problems allied with their special group.

Ray Smythe, president of the Willamette Iron and Steel Company, local chairman of the equipment committee, accompanied his talk on new equipment with slides showing accumulator installations in various mills throughout the country. Mr. Smythe also gave a fine resumé of new equipment installations in Pacific coast mills over the past year, and recommended that this would be a good plan for the equipment committee to adopt, in that it would keep technical men informed of new and late inventions and patents.

M. W. Black as chairman of the educational committee reported that not much had been done thus far in this line but that it was planned to offer some sort of study or training for younger men perhaps in one or two of the northwest mills.

R. J. Schadt, chairman of the Waste committee stated that white water waste had been studied somewhat and that chlorine as a slime preventive was also being given consideration, as slime seemed to be the most deleterious factor.

The point was mentioned that pulp mill waste was as vital a subject for study as paper mill waste in the west, and the problem of this pulp waste has already aroused public interest. Dr. H. K. Benson mentioned that waste from the pulp mill is not the same as that from a metallurgical or sulphuric chemical plant, but that often newspaper stories about stream pollution are misleading in this regard. Dr. Benson is local representative of the pulp testing committee.

It was voted to have a committee on pulp waste appointed for consideration of this phase of waste and this will be done before the next meeting.

Sigurd Norman reported for the acid pulping committee and Ralph Reid and R. S. Wertheimer for the alkaline pulping committee. E. P. Ketchum gave a brief report of what the mechanical pulping committee was doing and expected to do.

Prof. L. Friedman of the University of Oregon, discussed progress of the Fibrous Materials committee.

### Among Those Present

The following registered early in the day, but it was noted that others dropped in later in the day and to attend the banquet, and not all of these names were available.

G. J. Armbruster, Puget Sound Pulp and Timber Company, Everett, Wash.; I. H. Andrews, Powell River Company, Powell River, B. C.; Chas. A. Newhall, consulting chemist, Seattle; J. A.

*(Continued on page 21)*

# Activities of Fox River Valley Paper Mills

## Tomahawk Pulp & Paper Co.'s Plant May Resume Operations In Near Future After Being Closed Down Since Last Spring—Kimberly-Clark Report For Third Quarter Shows Balance of $589,433, Compared With $812,538 In 1929

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., October 20, 1930—Re-opening of the defunct mill of the Tomahawk Pulp and Paper Company, Tomahawk, Wis., is expected at an early date. The Bradley Company, holders of a prior lien, petitioned the court asking that the pulp mill be turned over to that company. The decision of the court has not yet been made known.

In the meantime, C. B. Pride, former president of the company, has been conferring with the bondholders committee appointed recently by the First Trust Company, of Appleton, Wis., relative to a plan of re-organization. Prospects of success seem imminent. The mill has been down since last spring, when financial difficulties were encountered.

### Kimberly-Clark Earnings Down

Earnings of the Kimberly-Clark Corporation, Neenah, Wis., are down for the third quarter of 1930, according to the quarterly report announced by F. J. Sensenbrenner, president. The corporation reported a balance of $589,433 after charges, compared with $812,538 in the same quarter in 1929.

Net is equal to $1.18 a share on 499,800 shares of common stock and compares with $1.52 a share last year. For the second quarter of 1930 the company reported a balance after charges of $832,468. For the first nine months of 1930, the total balance after preferred dividends was $2,116,833, or $4.23 a share on common stock. This compares with $2,178,796, or $4.35 a share for the same period in 1929.

### Lost Pulpwood Logs Recovered

Most of the pulp-wood logs lost when part of a 17,000-cord raft broke loose during a storm on Lake Superior were recovered by the Consolidated Water Power and Paper Company. Tugs were employed to pick up the drifting wood. It is now estimated that only a few hundred cords worth about $1,000 were lost during a season when 100,000 cords of pulpwood, valued at $1,000,000 were towed across the treacherous Lake Superior from Canada. The loading yard at Ashland, Wis., has been congested for a few weeks but all of the wood will be transferred via rail to Wisconsin Rapids, Wis., before a freezeup occurs.

### L. M. Alexander Tendered Banquet

Honors were paid to L. M. Alexander, president of the Nekoosa-Edwards Paper Company, Nekoosa, Wis., last week when a banquet was given commemorating the completion of forty years of service with his company. His son, John E. Alexander, presided and presented him with a silver plaque, the gift of the directors and other long term employees. Seated at the table with Mr. Alexander were four others who had been with the company for more than forty years. They were: George Scott, 59 years; John Brennan, 52 years; Henry Eichstead, 5 years; and Hugh Boles, 41 years.

Mr. Alexander was made an officer of the John Edwards Paper Company on October 15, 1890 and held various offices until May 24, 1910 when he became president of the present corporation. The inscription on the plaque gives a brief chronology of his career.

Principal speakers were John Brennan, C. A. Jasperson, Len Smith, Judson G. Rosebush, and B. R. Goggins. They gave reminiscences and described their business associations over a period of years with Mr. Alexander.

### Wisconsin Rapids Safety School Program

Wisconsin Rapids, Wis., is preparing for its second annual safety school, in which the Consolidated Water Power and Paper Company will take a leading part. The opening meeting will be held on November 7, when Garrett Burgess, vice-president of King Refractories, Inc., Buffalo, N. Y., will speak on "Training Men for the Battle." Later speakers will be Ernest Corn, of the National Safety Council; C. F. Otto, of the Employers Mutual Liability Company; F. A. Lauerman, Chicago; F. M. Wilcox, of the Wisconsin Industrial Commission, and Elwood T. Bailey, of Los Angeles, Cal.

### Work of Nepco Flying Service

Aviation as a means of company travel has proved its usefulness to the Nekoosa-Edwards Paper Company, Nekoosa, Wis., according to facts brought out at a celebration of the second anniversary of the dedication of the Tri-city airport at Wisconsin Rapids, Wis. The port was established largely by the company's efforts. It is operated by the Nepco Flying Service, of which John E. Alexander, first vice-president and general manager of the paper company, is the president.

Two years ago the company purchased a Ford tri-motored plane. Since then it has carried over 18,000 persons, has been in the air more than 1,200 hours, and has covered 130,000 miles. The Nekoosa-Edwards company has been able to bring to its mills at Port Edwards and Nekoosa some 4,500 paper jobbers and salesmen from various parts of the United States by means of its plane. Most of them have been able to leave their homes in the morning, tour the mills, have lunch with the company, and return to their homes the same evening. All mill employees of the company and their families also have been given pleasure rides.

### C. B. Clark Honored

C. B. Clark, president of the Riverside Paper Corporation, Appleton, Wis., has been elected president of Riverview Country Club, Appleton. Charles Boyd, president of the Appleton Coated Paper Company, was elected vice resident.

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## Boston Paper Market Steady

BOSTON, Mass., October 20, 1930.—The Boston paper market has shown an average amount of business during the last week. Some wholesalers say there has been a very good demand, while others have experienced a dullness. At best, it seems to be spotty. In wrapping paper there is an improvement, at least in some quarters. A dealer says there is a swing back to the better quality of kraft and sees some encouraging signs. Boxed board is in practically the same situation, with price conditions still very unsatisfactory. Business is spotty.

Paper stock conditions are unchanged. It is stated that business is hard to get and that collections are slow. A representative of a local house travelling among all the mills last week failed to make a single sale. In many cases, at least, manufacturers who have placed orders for stock are asking for shipment to be delayed. A local house in one instance has 200 bales of stock on hand, awaiting shipment. In most instances values are at the same levels.

Foreign manila rope has been dealt a severe blow, according to the trade, with reduction to 2.75 to 3.00 from a former range of 3.00 to 3.25. It is reported that consumers are having a slack demand for their paper and are buying raw materials in restricted quantities. Heavy baling bagging has been marked up to $2.10 as the maximum figure. Old papers, corrugated boxes have advanced to .40 from a previous quotation of .35. Jute twines are exceedingly bearish, but the other grades are holding firm.

# Philadelphia Paper Market Shows Spotty Trend

## Despite Improved Demand For Various Grades of Paper Competition Is Decidedly Keen and Prices Are Below Normal—Paper Board Situation Continues Unsatisfactory—Fine Paper Manufacturers Are Curtailing Production.

[FROM OUR REGULAR CORRESPONDENT]

PHILADELPHIA, Pa., October 20, 1930.—Conflicting business trends confront the Quaker City dealers as they look forward to improved demand from consumers of paper goods with the last quarter of the year and the holidays just in the offing. With keen competition and with prices at rock bottom there is little to be expected in the matter of profits for the distributors and much regret is expressed that prices are subjected to such levels that it hardly pays for the work involved in handling the present day small lot shipments.

### Paper Specialties Move in Larger Volume

Those distributors who have built up a considerable business in paper specialties find demand improving slowly. While standard grades lag specialties are moving freely and inquiries are increasing. Roofing papers and builders supplies are in more frequent demand. Paper bags continue to be the sore spot of the wrapping paper division and values are uncertain and low. The paper board market continues dull with many mills in the local field running from 4 to 4½ days per week. Price concessions in the glassine market and the competition of cellophane products has materially hurt that branch of the industry and manufacturers find it impossible to continue production at a profitable basis. Cellophane, it is stated by manufacturers of waterproof products, has hurt that business where its use for fancy covering and protective measures has made inroads on lighter water proof paper goods formerly used for such products as cigars, fruit and other food merchandise in dried form.

Manufacturers of fine paper and other grades of paper goods not classified in the specialty field are curtailing their production as business is slowly progressing. Average work week is from 4 to 4½ days. There has been some menace from low water, which has necessitated curtailed production, but with the rains of the late week it may be that mills will broaden their output. However, with the drouth alleviated, there is still the matter of poor demand to necessitate restricted manufacture. Paper stock dealers state that there is again extreme dullness in demand for waste paper or rags, indicating the absence of mill interest in raw materials. Prices continue steady but very low.

### Paper Manufacturers Co. to Make Label Papers

Having gone thoroughly into the production of gummed papers and converters of these products for the industry, the Paper Manufacturers Company, Fifth and Callowhill streets, is now ready to give further service in this division of its business through the production of its own lines of label papers, to augment those already established and which have been an immediate success on the market in gummed tapes and stay papers. The firm will shortly be ready to distribute to the paper trade its label papers made in the same high grade quality as the Perfection and Kraftweld gummed sealing tapes and stay papers, which come in No. 1 and No. 2 grades and which have extra fine adhesive qualities through research work in the firm's own laboratories. The firm has perfected this adhesiveness from experimental work with glues of the best grades and applied it to the gummed krafts that are made for its purposes. The label papers will be made of exceptional materials of the best qualities obtainable.

In a period of six months the Paper Manufacturers Company has progressed so rapidly with its gummed products that it has found it advantageous to further develop the lines and add to the paper wares of this class. The plant has been equipped extensively with the best in mechanical units that could be bought after a study of both American and foreign machinery with a view to obtaining the best equipment that could be assembled for gummed products converting. These units are now installed with an entire floor devoted to the department in the expansive city block building which it owns at the railroad junction of Fifth and Callowhill streets. The Paper Manufacturers' building is one of the largest paper structures in the section and is built along the railroad siding that gives it exceptional shipping facilities. The head of the firm, Frank A. O'Neil, announces that the label papers will soon be in sampler form ready for the distributors' inspection. The firm also conducts its own small roll converting department, established for many years, and with an international distribution.

### Paper Trade Association Meets

With deep interest in the recent National Paper Trade Association Convention and with concern over general business conditions, the full quota of members of the Fine Paper Division of the Philadelphia Paper Trade Association met at the Down Town Club and were alert to the information on activities of the national body as reported by the local president, W. S. Wilcox, who represented the association and substituted as delegate to the annual sessions. President Wilcox outlined in detail the surveys made during the past quarter by the national body and while not going into the intricacies of the report stated that the National association would issue these in its bulletin, which would shortly be in the hands of the members. He stated that a very complete analyses of business has been made through the questionnaire which was sent to individual firms showing the rise and fall of trade, delivery costs, costs of conducting business, and other factors of the paper industry in its distributive branch. President Wilcox then went into the statements of general business conditions as laid before the convention.

### T. H. B. Smythe to Report on Wrapping Paper

T. H. B. Smythe, head of the J. E. N. Smythe Company, who represented the Wrapping Paper Division at the National Convention will in the coming week give a similar report on the National association work at a meeting to be held at the Down Town Club.

### New Glatfelter Mill Nearing Completion

While the mechanical units of the new paper mill addition of the P. H. Glatfelter Company, of Spring Grove, Pa., are still to be completed, it is expected that the new unit will soon be ready for operation and production started before the end of the current year. When completed the new plant will give the company one of the most modern of paper mill equipments in machinery, power units and appliances. The P. H. Glatfelter mills will be in full view of passengers who patronize the airline services that have been inaugurated between Philadelphia and Pittsburgh by airplane, as York, Pa., will be one of the stopping points *en route*. A huge sign will emblazon the mills so that it will be readily discernable by those traveling the air route as they fly over the plant.

### William Edkins Organizes Keystone Cordage Co.

Having for many years been associated with the paper dealers as the representative of the Morice Jute Mills, manufacturers of cords and twines, in the Philadelphia industry, William Edkins,

is to continue his connection with the trade as the head of his own firm, the Keystone Cordage Company, with offices located in Room 621 Drexel Building. He will represent the Dolphin Jute Mills, manufacturers of similar lines of cords and twines, with mills located at Paterson, N. J., handling the jute products exclusively for this section as far south as Virginia and the District of Columbia, Maryland, Delaware, Southern New Jersey and Eastern Pennsylvania. The change in his business association follows the dissolution of the Morice Jute Mills, of this city, which disposed of its machinery to the American Manufacturing Company, producers of twines at Water and Tasker streets, upon the retirement of the owner of the firm, John H. Morice, from business. Mr. Edkins was for six years associated with the Morice Mills.

### Reuben Magil Wed

Wedding bells chimed for Rabbi Reuben J. Magil, eldest son of Myer Magil, head of the Penn Card and Paper Company, 20 North 6th street, who on October 19 was united to Miss Selma Diskan, of this city, at Har Zion Temple, in Wynnefield. Rabbi Magil is connected with Temple Kodima, at Springfield, Mass., where he is head of the congregation of the paper mill city.

### Assembles Primitive Paper Mill Turbine

With the presentation of the original bearing of the water turbine that operated the old David Rittenhouse Paper Mill, the first paper mill in America, which was located here on the Wissahickon, last week to the Franklin Institute, there was completed the assembling of the old water turbine engine which operated the mill and which the Institute has been gathering together for several years. Dr. Howard McClenahan, head of the Institute, accepted the bearing, which is one of the two bearings that were originally in the turbine, but which were lost when the Fairmount Park Commission took over the care of the old mill with the transfer of the River Drive to its keeping. A search has been conducted for the bearing ever since until finally located in the possession of S. Edgar Trout, one of the officials of the Centennial Exposition in 1876, into whose hands it came from an old mill now located near Lancaster where it was in use until a few years ago. With the acquisition of the bearing the old water mill turbine has been completed for exhibition purposes by the Franklin Institute and may be included among the exhibits of the history of paper making in the Benjamin Franklin Memorial, which is under way.

### C. R. Hoskins Co. Under Receivership

Appointment of J. J. Cabrey as receiver under bond of $20,000 was effective in the week when Judge Thompson, in the U. S. District Court here, placed the C. R. Hoskins Company, long established and prominent Chestnut street paper dealers, in equity receivership with a view to straightening out the financial difficulties of the firm. The receivership was the result of application of creditors whose total indebtedness amounted to $3,411 for an adjustment of the present difficulties of the firm and who filed an equity bill in which they stated that while the Hoskins Company had book assets of $103,884 against liabilities of $98,486, or an apparent surplus of $5,400 it was in financial difficulties because it had only $19,908 in liquid assets to meet current obligations of $64,884, which if not paid immediately on demand of creditors would probably cause heavy depreciation in the value of the company's assets. The firm has been engaged in business here for three score years or more.

### Paper-Pulp Machinery Corp. Formed

PORTLAND, Ore., October 18, 1930—The Paper-Pulp Machinery corporation is a new corporation formed by Sigrud Norman, formerly with the Spaulding Pulp & Paper company of Newburg, but now with the Sumner Iron Works of Everett, Wash., A. C. Little of Newberg and Thomas Bilyeu, patent attorney of Portland. Capital stock is $50,000.

## LAKE STATES SECTION FORMED

*(Continued from page 15)*

H. G. Noyes, conductor and A. W. Bouffard, pulp and paper instructor, of the Wisconsin Vocational Schools.

G. F. Enderlein, chief chemist; H. L. Voss, chemist; E. Ahles, pulp mill superintendent; J. D. Line, assistant pulp mill superintendent and E. J. Oleson, shipping and finishing, of the Mosinee Paper Mills.

Allen Abrams, technical director; W. A. Chilson, chemical engineer; N. H. Foley, chemist; R. I. Drake, chemical engineer and J. P. Hagenauer, engineer, of the Marathon Paper Mills Company.

S. D. Wells, technical director; E. P. Arpin, Jr., research engineer; E. P. Gleason, manager, power and engineering and C. E. Youngchild, general paper mill superintendent, of the Nekoosa-Edwards Paper Company.

G. K. Hill, chief chemist; A. Wilbert, superintendent; J. Bretthauer, assistant superintendent and J. D. Michie, assistant superintendent, of the Gilbert Paper Company.

D. F. Peterson, chief chemist; A. Schmidt, chemist and R. A. Vanderwalker, chief engineer, of the Bergstrom Paper Company.

M. A. Youtz, research director; C. H. Nystrom, technical director and A. W. Wilson, assistant chemist, of the Northern Paper Mills Company.

J. H. Slater, general manager and C. R. Swett, chief chemist, of the Escanaba Paper Company.

L. W. McFail, chemist and C. J. Larson, production, of the Appleton Coated Paper Company.

A. T. Gardner, chemical enginer and B. A. Laird, assistant chemist, of the Combined Locks Paper Company.

J. A. Staidl, pulp mill superintendent and C. R. Seaborne, general superintendent, of the Thilmany Pulp and Paper Company.

G. F. Hrubecky, chemical engineer and John Hercher, superintendent, of the John Strange Paper Company.

G. K. Dickerman, chemist and W. C. Prebanon, assistant sulphite superintendent, of the Consolidated Water Power and Paper Company.

W. M. Hayes, chemist, Interlake Pulp and Paper Company.

T. C. Bentzen, chief chemist, Whiting Plover Paper Company.

C. M. Baker, assistant engineer, American Paper and Pulp Association.

A. D. Richetta, engineer, Hoberg Paper and Fibre Company.

G. Van Ostrand, accountant, Kimberly Clark Corporation.

C. A. Cajanus, engineer, Menasha, Wis. C. H. Noble, A. E. Staley Manufacturing Company. I. R. McCall, Detroit Graphite Company. O. T. Birkeness, Wallace & Tiernan Company. C. T. Ramden, Beloit Iron Works. F. D. Turner, A. M. Meincke & Son.

### Boston Paper Trade Happenings

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., October 20, 1930.—A. M. Phillips, a partner in the firm of S. Sternberg, London, Eng., well known for the Sternberg Fourdrinier wires, is in this country, renewing his business connections among the New England mills. Last week he called on George M. Graves, of the Geo. M. Graves Company, New England representative of the company.

Max Frank, of John Carter & Co., Inc., who had been away from the office on account of illness since January, 1929, is being greeted by his associates and mill representatives on his return to his desk, where he is working part time. In May, 1929, one of Mr. Frank's legs was amputated. He has been with John Carter & Co., Inc. for nearly fifty years.

Edward B. Dick, formerly of the Geo. W. Wheelwright Paper Company, of North Leominster and Wheelwright, Mass., has become associated with Percy D. Wells.

Max Zimmerman, superintendent of manufacturing of the United Paperboard Company, 171 Madison avenue, New York, called at the Boston office last week.

# Paper Demand Fairly Satisfactory in Toronto

## General Business Conditions Continue Spotty With Individual Sales Consisting Mostly of Small Lots—Fine Papers Are Moving More Freely Than Coarse and Specialty Grades — Coated Stock In Moderate Request For Season

[FROM OUR REGULAR CORRESPONDENT]

TORONTO, Ont., October 20, 1930.—While a fair amount of business is passing in wholesale paper circles in Ontario conditions generally continue somewhat spotty with sales individually small, but bulking up fairly well from week to week. The experience of most paper merchants is that a good week's sale is followed by a lean one. The average, however, is keeping up well, despite continuance of bad business conditions throughout the Dominion generally, and the paper trade as a whole has little to complain of. There is evidence each week that consuming sources of paper are beginning to take in stock for work that has been held up until better times came and it is considered only a question of a short time when the wholesale paper industry will be back to its old time prosperous level. On the whole, fine papers are selling better than the coarse and specialty class. In the latter are included such lines as greaseproof, waxing and glassine which are inclined to be slow. On the other hand tissue and toilet lines are moving well, both the mill trade and wholesale distribution being on a satisfactory basis. There is a fair demand for coated stock and for the most part the fine paper mills have orders ahead for from two to three weeks.

### Business Only Ten Per Cent. Down

Wrapping paper, paper bags, and office stationery are a fairly good criterion to business conditions, especially as affecting retail merchandise and office correspondence. Kilgour Bros., owners of paper mills and wholesalers of coarse paper to the retail trade, are now in their 59th year. It seemed almost inevitable that they should register as much decline in actual business as could be found anywhere outside the stock exchanges, because there is no direct feminine factor in the purchase of paper bags and wrapping paper, no matter what may be said of stationery. John Larkin, the new general manager of Kilgours, who is now at the Toronto plant, says: "There is a general feeling of optimism in the trade since the new tariff went into effect. We can now see our way clear to a fair and open deal with the Canadian market. What made a low tariff so bad in our business was the fact that most of the paper manufacturing in the United States is now done in the south where labor is cheap. The labor factor is a high one in our business. Without protection we cannot get volume production. If paper manufacturers can be sure of fifty per cent of the home market they can get along. But we must have that. Our timber is as good as that of the United States and our product is as good. Not long ago, in fact, most of the United States paper manufacturing was done in the north. But the timber was used up there and the industry moved south for timber and cheaper labor. Our labor costs were not quite so high as those of the north and they are much higher than those of the south." Mr. Larkin added that in the matter of actual sales by his firm they have been only ten per cent so far this year as compared with the same period in 1929 and he expected that this ten per cent would be made up and more during the coming year as the result of the protective policy of the present Government. "A Canadian industry, with several mills in two provinces," he said, "financed and raw-materialed and labored by Canadians, should have an even chance on the home market—which under the old tariff we did not get, even against the Scandinavians. Under the new tariff there should be a general pickup in business."

### Safety Matters in Ottawa District

A. P. Costigane, secretary-engineer of the Ontario Pulp and Paper Makers' Safety Association, has returned to Toronto after attending a meeting of the eastern group of the organization held in the board room of the J. R. Booth Company, Ltd., at Ottawa, and under the chairmanship of A. N. Wismer, of the Mille Roche mill of Provincial Paper, Ltd. The companies represented at the meeting were Provincial Paper, Ltd.; J. R. Booth Company, Ltd.; Howard Smith Paper Mills, Cornwall; Canadian International Paper Co., Hawkesbury; together with Dr. Burnhart, of the Lumbermen's Association, Ottawa. There being no specific agenda the meeting developed into a round-table conference on such subjects as "accident experience for the coming year" in respect to frequency and severity, "first aid and benefits accruing therefrom," "physical examination and hazards" and similar topics.

The consensus of opinion was to the effect that a greater number of teams or a greater number of companies should be interested in the matter of accident prevention as outlined at the conference. On behalf of the J. R. Booth Company, J. H. Albert stated that the company would likely enter a team next year and at the present time they were clearing the ground for such a development. The wearing of fiber hats by men working around the pulpwood piles, especially in winter time, was strongly advocated, and it was intimated that several of the pulp and paper companies would have this protection during the coming winter season. It was also suggested that it might be to the advantage of the mills to arrange for a joint meeting of the group at any early date, probably to be held in Toronto, to go further into certain matters that came out during the discussion.

Thanks were extended to Mr. Wismer and the J. R. Booth Co. for the entertainment provided by them and it was decided to leave the matter of a subsequent meeting to the call of the chairman. The services of R. R. MacRae, the secretary of the group, also acknowledged and his efficiency commended. Altogether the conference lasted four or five hours and all of the delegates pledged themselves to further the interests of the organization.

### Carton Manufacturers Get Tariff Change

In the new tariff schedule issued at Ottawa there was a section in the original wording which called for a per pound rate on paper containers of all kinds, corrugated or fiber. When this new classification came out enquiries were made of Ottawa asking what was their ruling in regard to set-up and folding boxes. When members of the industry were informed that their business was affected by this classification it was pointed out that the per pound basis such as proposed would actually reduce the protection enjoyed by the industry, in many cases cutting it to 10 per cent and less. A committee composed of C. M. Prescott, president of the Canadian Paper Box Manufacturers' Association, J. A. Northey, G. W. Brown and Secretary Hodder, proceeded to Ottawa in an endeavor to have the clause rectified. Some opposition was at first encountered but the committee was fortunate enough to get an audience with the Prime Minister and the difficulty was pointed out to him with the result that the wording of the clause has been changed, and set-up and folding cartons will come into the Dominion under the old classification at 35 per cent.

In this connection the secretary, Mr. Hodder, has informed the members that "While the actual method under which the new regulations will be enforced has not been definitely decided upon, it would be well for the industry, particularly for those interested in folding cartons, to take a definite stand on the question of foreign competition. There is no just reason why a manufacturer

outside of the Dominion should sell in this country at less than the price the manufacturer here can fabricate unless the article is a specialized one and presents a manufacturing problem. In order to circumvent this unsatisfactory and unfair competition it should be our duty to report to the association all cases of such importations for investigation. Seeing we were so fortunate under the old regulations, it would appear as if we were in a much better position under the new. You are presented with a potential market of over a million dollars. Whether you seize it or not depends entirely upon yourself and upon the active interest you take in securing it."

### Moving Surplus Pulpwood

A slight increase in pulpwood movement is reported in the district of Blind River, Ont., as the result of the movement of wood from its mill at Espanola to the Sault Ste. Marie mill by the Abitibi Power and Paper Company. There is a large surplus of wood at Espanola which, it is stated, will require about six months to transfer to the Soo mill. This is now being done at the rate of 100 carloads a week. The loading operations give employment to about 50 men at Espanola. With the completion of this work the mill will be closed down and a portion of the workmen previously employed there will be given employment at the power site at Abitibi Canyon.

### Ontario Government Helps Unemployment

Expenditure by the Ontario Government of approximately $80,000 on slash burning, as an unemployment relief measure, has been programmed for Queen Park, and will start immediately. Details of the program were discussed this week by the Hon. William Finlayson, Minister of Lands and Forests, at a conference with the district foresters of the department. This slash-burning measure has been approved by Ottawa, and is being launched with a view to safeguarding further against loss by fire the outlying settlements and great timber and pulpwood areas of the north.

Special attention will be paid to improving the safety zones now existing in hazardous districts. The $80,000 expenditure now programed may be extended, it is intimated, if the circumstances warrant. Considerable labor will, it is expected, be provided through this slash-burning, and the Lands and Forests Department will make every effort to ensure that the neediest unemployed are given the preference for the first jobs available. The district foresters who conferred with the Minister have been in Toronto several days on their annual consultation with headquarters. While here they paid a visit to the big reforestation station at St. Williams and discussed with officials there the Government's general reforestation policy.

### Notes and Jottings of the Trade

A strongly worded resolution has been forwarded to the Port Arthur City Council by the Trades and Labor Council for endorsation, protesting against the closing of the Thunder Bay (Abitibi) mill at Port Arthur. The labor people claim that the company operating the mill is failing to live up to its agreement with the city and the Provincial Government in closing down.

A building at 44-46 Princess street, Toronto, owned and operated as the Toronto Waste Paper Company, by Swartz & Rosen, was badly gutted by fire a few days ago. Waste paper to the value of about $10,000 was destroyed and 25 hands thrown out of employment. The paper stock was not insured and the policy on the building had been cancelled a few weeks ago.

Matthew Burns, of Albany, N. Y., international president of the Paper Makers' Union, and J. P. Burke, of Fort Edward, N. Y., international president of the Pulp Workers' Union, have been in Canada conferring with Canadian Government officials on various phases of the labor situation in Canada.

A recent visitor to Toronto was H. B. Kirby, of Mid West Paper Sales, Ltd., of Winnipeg.

Alfred Haight, managing director of Brittains, Ltd., Chaddelton Paper Mills, near Leek, Staffs, has been touring Canada absorbing information about Canada's pulp and paper industry. Mr. Haight brought with him a letter of introduction from Alfred W. Foster, secretary of the Paper Makers' Association of Great Britain and Ireland. He was accompanied by Mr. Ward, a director and assistant secretary of Brittains, Ltd.

H. B. Donavan, of the Canada Paper Company, Toronto, spent a few days of last week in Ottawa on business.

Recent despatches from Kenora say that a new Sikorsky plane, accompanied by a Fokker cabin monoplane, arrived in that town with a party of Backus officials to carry out a territorial examination and survey. E. W. Backus arrived by train and spent some time in the plane surveying the local pulp limits. The plane is owned by Mr. Backus and the Fokker plane belongs to the Pigeon River Timber Co.

## TAPPI MEETS ON COAST

*(Continued from page 16)*

Lundie, Powell River Company; Thos. E. Moffett, Hooker Electrochemical Company, Tacoma; Dr. W. Hirschkind, Great Western Electro Chemical Company, Pittsburg, Cal.; Carl Weyerhauser, Weyerhauser Timber Company, Tacoma; Carl E. Braun, Puget Sound Pulp and Timber Company; Robert B. Wolf, Wolf & Hill, consulting engineers, 200 Fifth avenue, New York; W. S. Hodges, Appleton Wire Works, Inc., Portland; Earl G. Thompson, Seattle; Brian L. Shera, Wallace & Tiernan Company, Seattle; E. P. Ketchum, Powell River Company, Ralph Reid, consulting chemist, St. Helens Pulp and Paper company, St. Helens, Ore.; R. J. Schadt, chemical engineer, Hawley Pulp and Paper Company, Oregon City, Ore.; L. M. Start, Rice, Barton and Fales, Worcester, Mass.; I. R. Titcomb, Weyerhauser Timber Company, Tacoma; G. F. Mitchell, Hesse-Ersted Iron Works, Portland; R. S. Wertheimer, Longview Fibre Company, Longview, Wash.; C. W. Morden, C. W. Morden Company, Portland; H. Lundberg, G. D. Janssen Company, Seattle; S. Norman, Sumner Iron Works, Everett; R. A. Simpson, G. D. Jenssen Company, Seattle; Myron W. Black, Inland Empire Paper Company, Spokane, Wash.; A. L. Raught, Jr., Weyerhauser Timber Company, Longview; W. H. Gibbons, U. S. Forest Service, Portland; A. T. Peterson, Naso Chemical Company, Seattle; Ray Smythe, Willamette Iron and Steel Works, Portland; Ben L. Grondal, University of Washington; A. C. Silliman, Spaulding Pulp & Paper company, Newberg, Ore.; U. A. Kippinger, Griffith Rubber Mills, Portland; Kenneth B. Hall, Noble & Wood Machinery Company, Portland; H. Gevers, Longview Fibre Company, Longview, Wash.; A. R. White, Tacoma Electrochemical Company, Tacoma; G. H. Baker, Tacoma Electrochemical Company; James D. Fagan, Puget Sound Pulp and Timber Company, Everett.

## Wisconsin Cost Men to Meet November 12

The Wisconsin Cost Division, American Paper and Pulp Association will hold a Luncheon Meeting at the Milwaukee Athletic Club, Milwaukee, Wis., at 12:30 P. M., on Wednesday, November 12, 1930.

All pulp and paper mills are invited to send representatives to this meeting. Reservations should be forwarded to Miss I. M. Carney, Secretary-Treasurer, Tomahawk Kraft Paper Company, Tomahawk, Wis.

Other officers of the Wisconsin Cost Division are:—Harry Deyo, Pres., Nekoosa-Edwards Paper Company, Port Edwards, Wis.; A. M. Van Douser, Marathon Paper Mills Company, Rothschild, Wis.; E. A. Lindberg, Northern Paper Mills, Green Bay, Wis.; O. J. McIlree, Falls Manufacturing Company, Oconto Falls, Wis., who are members of the executive committee.

A really worth while meeting is being planned, and a representative attendance is assured.

# News Print Marketing Organization Planned

## Would Replace Newsprint Institute of Canada In Regulating Production and Prices of News Print Paper—Sales of All Contributing Companies Would Be Transacted Through New Organization—Plans Call For Joint Stock Company.

[FROM OUR REGULAR CORRESPONDENT]

MONTREAL, Que., October 20, 1930.—A new turn has been given to the discussion regarding a giant merger of news print interests in Canada by the statement that the plan around which the hopes of the leaders of the industry are centering is not an amalgamation of the principal news print organizations, but the formation of a central marketing organization through which sales of all the contributing companies would be transacted. This organization would replace the News Print Institute of Canada in regulating production and price of news print. It is pointed out that the Institute, which was in the nature of a gentlemen's agreement between the producers, was almost bound, under existing circumstances, to lose its efficiency, and that any new organization must involve the binding of the various interests in a hard and fast agreement.

The plans which are declared to have been submitted for the new organization call for a joint stock company the shares of which would be held proportionately by the different producers, and there would be no public participation.

Meanwhile, the News Print Institute continues to function, and John H. Price, of Price Bros. & Co., is still the president, the meeting called by him for the purpose of accepting his resignation having been indefinitely postponed. It is understood that his fellow members in the Institute have been negotiating with him unofficially with a view to continuing the functions of the Institute in administering a standardized sales and production policy at least until the outcome of the negotiations for the proposed new organization is definitely established.

Added point is given to the argument of those seeking a larger measure of co-operation among the leading producers by the September news print statistics, just made public, revealing a drop in production, when compared with the preceding month, and the fact that the Canadian mills operated at only 66.8 per cent of rated capacity during that month. This contrasts with over 91 per cent in September of last year. For the first nine months of this year, the mills in the Dominion operated at under 71 per cent of capacity, as contrasted with nearly 85 per cent in the corresponding nine-month period of last year.

### News Print Freight Evidence Complete

The Canadian Board of Railway Commissioners has adjourned until November 24 the hearing on the suspended increase in news print rates which the Canadian railways sought to impose on that commodity, southbound to United States points. The session which adjourned had begun on October 7, being a continuation of those held earlier in the year.

A mass of highly technical evidence was presented to the board. Newsprint manufacturers and users on both sides of the international boundary protested against the proposed increase and had experts in traffic management give testimony to the injury which they claimed would afflict their various businesses should the new schedule be made effective. On the other hand, the railway companies produced witnesses who sought to prove that the new rates were fair and reasonable.

A large array of counsel, both Canadian and American, were present at the hearings. All evidence now having been submitted, argument by counsel will open on November 24.

### Eddy Plant to be Rehabilitated

As a start on a plan which has for its object the complete rehabilitation of the plant of the E. B. Eddy Company, at Hull, Que., plans are now being prepared for the erection of a modern filteration plant and bleaching plant at the present site of the sulphite mill near the interprovincial bridge. The cost of this initial step will run to some $1,800,000.

Officers of the company make it clear that the contemplated expenditure was only the first unit in a larger scheme, which will run into many millions, and which will extend over a number of years. The company has decided to rehabilitate completely the entire plant, in a mechanical sense. New buildings will be erected as the scheme unfolds.

### The Close-Down of Quebec Pulp Mill

Officially announcing the closing down of the Chicoutimi mill of the Quebec Pulp and Paper Corporation, A Stewart McNichols, the president says:

"Quebec Pulp and Paper Corporation will discontinue operations at its Chicoutimi mill on October 31, until further notice. This decision is rendered necessary by the unfavorable condition of the groundwood market.

"Usual precautions will be taken to properly protect the assets while the plant is inoperative and further efforts will be made to bring about a favorable settlement of the problems affecting the company and its undertaking."

Quebec Pulp and Paper Corporation was incorporated in 1927 to acquire the assets and properties of the Quebec Pulp and Paper Mills, Limited. At the incorporation of the new company, the Port Alfred Pulp and Paper Corporation and Price Brothers and Co., Ltd, paid jointly $3,000,000 for all the new common stock, giving the shareholders cash and new preferred stock for their old shares. As Port Alfred is a subsidiary of the Canadian Power and Paper Corporation, the latter and Price Bros. are in joint control of Quebec Pulp and Paper Corporation, which has a directorate composed largely of directors of the two controlling companies.

### Price Bros.' Woods Operations

The woods operations of Price Bros. & Co., Ltd., for this year have been approximately as large as those of last year, according to J. Leonard Apedaile, the vice-president. The cut in the Shipshaw area has been 35,000 cords, against 45,000 cords last year; Ecorces area 12,500 cords against 25,000 cords last year; Lake St. John area 45,000 cords, whereas last year 20,000 cords were cut in the Ferland district. The total this year was 92,000 cords, against 90,000 cords. Respecting operations, Mr. Apedaile says:

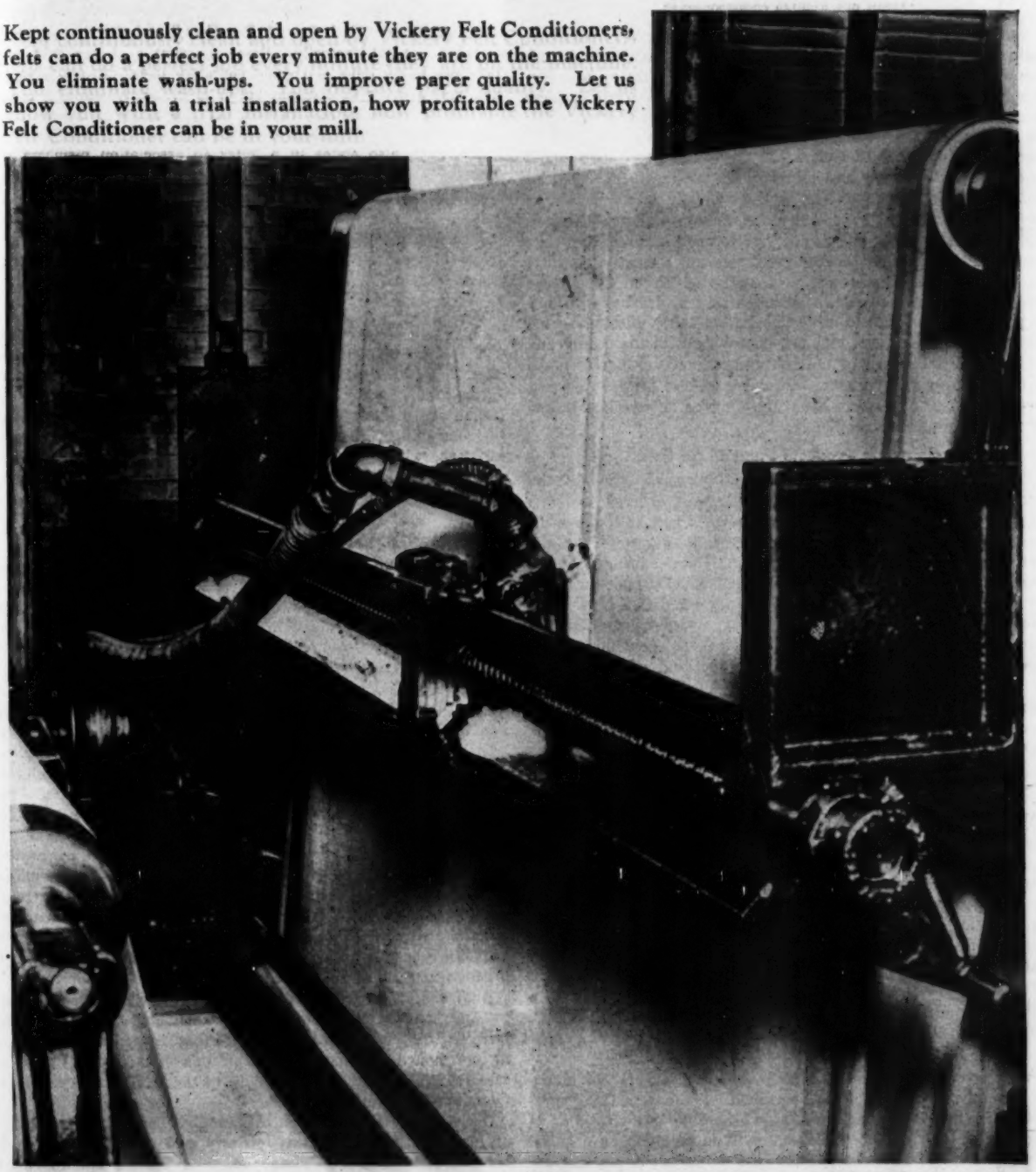
"Naturally, this quantity of wood does not represent the quantity which we would require had we not already wood on hand, and were we working to full capacity. At full capacity our annual requirements would be in the neighborhood of 350,000 cords. Even with such curtailment of operations, we experience some slight shortage of labor, which under the circumstances is very difficult to account for.

"With regard to our lumber operations on the South Shore of the St. Lawrence, the case may be somewhat different, owing to the large stocks of lumber which have accumulated because of the decrease in building operations and of the slump in lumber prices. We are, however, carefully considering whether or not we can cut the same quantities as we did last year at Rimouski, Matane and Metis, which course we would like to adopt if we can persuade ourselves that the lumber market will not decline further. Unfortunately, we shall be unable to cut any wood in Salmon Lake, as the saw mill will close permanently at the end of the present sawing season, owing to the almost entire depletion of the limits which supplied it."

# VICKERY FELT CONDITIONERS

# KEEP FELTS CLEAN . . .

**Kept continuously clean and open by Vickery Felt Conditioners, felts can do a perfect job every minute they are on the machine. You eliminate wash-ups. You improve paper quality. Let us show you with a trial installation, how profitable the Vickery Felt Conditioner can be in your mill.**



**BIRD MACHINE COMPANY**
**SOUTH WALPOLE, MASSACHUSETTS**

4460

# Paper Demand Shows Improvement In Chicago

## Fine Papers, Writings, Ledgers, and Other Standard Grades Are Moving More Freely Than of Late—News Print Situation Practically Unchanged — Coarse Paper Market Is Fairly Steady—Paper Board Section Floundering Along

[FROM OUR REGULAR CORRESPONDENT]

CHICAGO, Ill., October 20, 1930—A touch of real Fall weather, following days of unseasonal heat, had a great deal to do with stimulating retail buying in Chicago this week. This more favorable condition is expected to materially improve the paper business in the near future. With the National Paper Trade Association meeting out of the way Chicago paper houses are continuing an intensive drive for fall business. In the coarse paper lines, retail prices are fairly steady and jobbers here are trying to disregard the price upheavals in so far as they directly affect their own business. However, the various associations are alertly trying to combat unstable prices and to put over to manufacturers that they prefer stable prices at almost any level rather than a constant uncertainty. The board market is reported to be floundering along under a price change of some spread and demand will have to pick up a great deal to make this market fairly effective. Fine papers, writings, ledgers, etc., are improving with the season and with the partial return of normal business. No change is noted in news print with representatives hoping to keep prices at current levels at least. Tissues are about the same as last week with one of their busy seasons near at hand.

### Cornstalk Products Plant to Be Sold

Sales of plant and equipment and all physical assets of the Cornstalk Products Company of Danville were ordered sold this week by the United States District Court. Plant and equipment inventories at around $750,000 according to attorneys for the receivers and approximately $2,500,000 has been expended at the plant. The general indebtedness is around $700,000, not including the investment of stockholders. It is understood that New York interests are investigating the plant with a view toward bidding it in. The company was organized in New York about three years ago to manufacture pulp for making paper out of corn stalks by a process discovered by Dr. Dorner, of Budapest, Hungary. Subsequent experiments brought radical changes in the Dorner process. Paper made from corn stalk pulp was more or less successfully manufactured but the company never progressed far beyond the experimental stage according to reports.

### Westvaco Inspirations

Westvaco Inspirations, Number 58, makes its appearance this week from the West Virginia Pulp and Paper Company. "Travel" is the theme of this issue and various effective advertising pieces featuring travel advertising, etc., make-up an attractive treatise on advertising creations. "Exotic Color in Periodical Advertising," "Color on the Highways," "Dramatizing Speed" and a display of "distinctive rendering of 'parts' illustrations" are features of the issue. From an educational standpoint the present current issue of Westvaco points out the color, speed, refinement and luxurious note that characterizes present day travel advertising.

### Yearly Loss on Discounts Discussed

An interesting discussion on yearly loss on discounts was given out recently by D. H. Peck, president of the Chicago Paper Association and the D. F. Peck Paper Company. "Have you ever figured your yearly loss on discounts? You purchase on a basis of net cash ten or thirty days, 1 per cent ten or net thirty, and on 2 per cent thirty days. You sell on 2 per cent ten, net thirty, 2 per cent thirty, net sixty or ninety days. Your average loss on all sales is 1 per cent or more the moment a sale is made with a discount of two per cent. We have had new bill heads printed showing "Terms Cash Less 1 Per Cent," and the new system is working out satisfactorily. Some discount at 1 per cent, some take net thirty days and some net sixty days. A few complain and take 2 per cent discount but it is gradually working toward perfection. Late we may develop net cash terms as in sales transactions terms of settlement are seldom at issue. Just try it."

Mr. Peck also states in a letter to association members that "Most jobbers are paying no attention to present quoted prices nor inside prices on kraft bags and papers as their costs for selling—but rather are selling their merchandise on prices prevailing two months ago, and this is what all should do—relative to the business situation it is fine and increasing and retail prices are at present firm and satisfactory."

### "Rags in Paper"

"Rags in Paper"—Number 25—sponored by the Rag Content Paper Manufacturers—arrives in this week's mail with a discussion "Is it the Buyer, Printer, Lithographer or Engraver" as the theme of the issue. Here's a bit from the copy—"It follows that if you are the buyer (of letterheads) you will be wise to insist on good design, good paper. If you are the producer, the same insistence will argue equal wisdom. For at this point the buyer and seller 'make or break' the letter head." A neat and attractive sample letterhead is attached to the issue, as usual. Sort of a "practice what we preach" illustration.

### News of the Trade

John R. Mauff, a former executive vice-president of the Paper Board Exchange and Box Board Association, is in charge of a new office of C. D. Robbins & Company, brokerage house, which has recently been installed in the new Merchandise Mart. Mr. Mauff is a veteran of twenty-five years membership on the Board of Trade.

Number 1 of a series of beautiful direct mail advertisements of Oxford Papers and bearing the name, in this territory, of Bermingham & Prosser Company, Chicago, makes its appearance. The first of the series is a splendid portrayal of the wisdom of adhering to quality of product and to adhere to it persistently. Beautiful four color illustrations are used—six of them—in the two inside pages. Oxford North Star Coated is given the "copy" on the fourth cover.

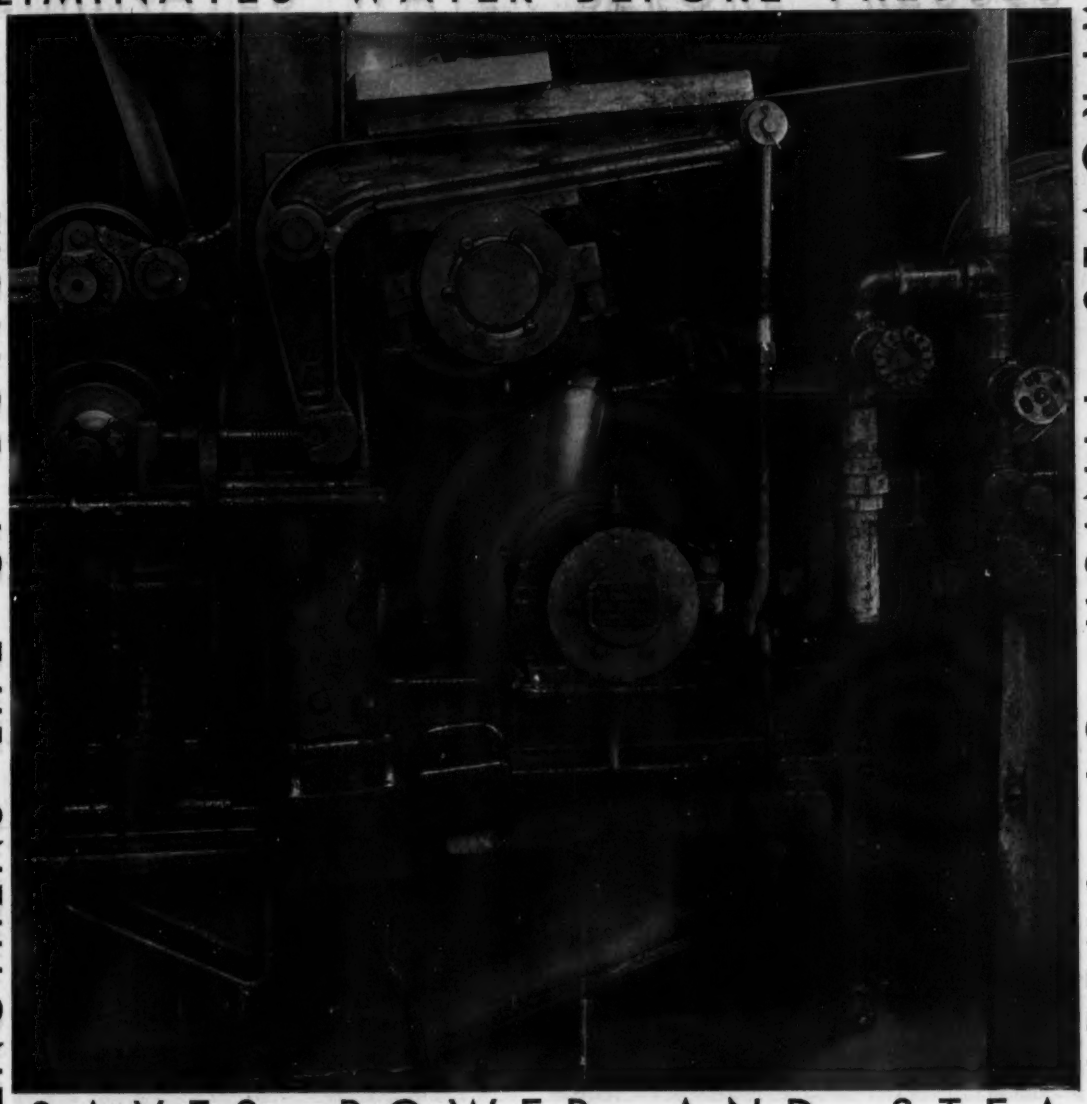
"Pulling in orders with Atlantic Bond" is the title of Eastern Manufacturing Company's latest mail broadside. The "Pulling" is illusrated by a fisherman just hooking a trout—and the trout's head appears through a cut-out on the front cover demanding instant attention. The folder itself contains many samples of "Atlantic Bond" as used by well known commercial and industrial organizations. The folder has a great deal of genuine merit.

According to a recent announcement the Container Corporation of America has introduced a colored shipping case to the commercial world which makes a very attractive display box out of the corrugated container. The perfection of the colored shipping cases is expected to add materially to the scope and size of the Container Corporation business.

James Henry Coy, Jr., son of Jim Coy, popular representative of Flambeau interests in this territory, and a paper merchant in his own right with the Chicago offices of Eastern Manufacturing Company, was married early in October to Miss Winifred Moshier Murphy. Young Jim and his bride are at present honeymooning in the East and will return to Chicago on October 20.

ELIMINATES WATER BEFORE PRESSES

LENGTHENS LIFE OF BOTTOM FELT



IMPROVES FINISH OF SHEET

SAVES POWER AND STEAM

Install a Downingtown Extractor Roll on the end of your vats and relieve your press part. This roll will remove from 1½ to 2 tons of water for every ton of board produced on the machine. Estimate what this would mean in dollars to you. For further information about actual mill performance of this roll, address the Downingtown Manufacturing Co., Downingtown, Pa.

Something NEW for BOARD MILLS

# A New Way To Package Foods In Cartons

For a long time there has been a miniature war being waged between the advertising and sales departments of large food manufacturing companies against the production departments of the same companies. The production departments have insisted that their product required waxed paper protection and the best way to obtain that protection and get a perfect seal in the paper was by applying the self sealing waxed paper on the outside of the carton.

The contention of the advertising and sales departments was that this sheet of paper covered up the attractive design on the carton and destroyed the appearance of the carton on the grocery shelf. Since appearance on the grocery shelf is a vital factor in sales it is easily understood why a way has been sought whereby the same protection could be given a product without harming the appearance of the carton.

### Photo Electric Cell Method

A method that is acceptable to the sales, advertising and production departments of any large food manufacturing company has been found by using the photo-electric cell, which is operated by a small printed spot placed on the printed waxed paper in register with the design and spaced at regular intervals. In operation a concentrated beam of light shines through the waxed paper onto one of these photo-electric cells and as the paper moves along these printed spots cast shadows on the cell causing it to send forth electrical impulses which are amplified to operate power relays. These regularly reoccurring electrical impulses made by the spots on the paper serve as a means of registering or gearing the paper to the machine as it is unwound and cut into sheets and delivered where they are wrapped around the carton.

### Much Experimenting Done

Much experimenting was done on the actual control, attached to the paper feeding system of the wrapping machine, which governs the speed of the paper being fed to the cut-off knife, so that the knife would cut it off at the proper place in relation to the printed design. The method finally found practical under actual production conditions is applicable to any automatic wrapping machine using a continuous method of paper feed, consisting of a rotary knife and continuous moving paper feed rolls. In regular practice the paper feed rolls are driven by gears from the cut-off knife and are set to deliver a sheet of a certain length every revolution of the knife. Where printed paper is used, however, it is necessary to be able to vary slightly, from time to time, the amount of paper fed to the knife so that the knife will cut the paper at the correct point of the printing. This amount of paper feeding cannot be held constant because of a small amount of slippage or creepage of the paper in passing through the feeding rolls no matter how good these rolls may be, and the slippage is not constant.

### Variable Speed Used

To control this slippage a variable speed drive is placed between the knife and these feed rolls instead of the gears. The control of this variable speed transmission is done by the electrical impulses from the photo-electric cell.

When watching this control in action the observer will notice the final amplifying tube flashing at regular intervals and every few packages wrapped either one or two relays will close and the control hand of the variable transmission will move from its neutral position either to the right or to the left and return to its original position. In addition a set of signal lights in front of the operator show that a correction is taking place and in which direction. While this correction is taking place the paper is either speeded up or slowed down slightly depending on whether the knife is cutting the paper ahead or behind the point set. This apparatus works steadily keeping the cut within 1/16 inch of the correct line of cut. The sheets of paper are all the same length when measured, as required by the machine for correct wrapping. This control will work at any wrapping machine speed.

### Invented by Ralph S. Clark

This control was invented by Ralph S. Clark of the Kalamazoo Vegetable Parchment Company, Kalamazoo, Mich., and its development brought about through the cooperation of the General Electric Company who have built and are furnishing special photo-electric cell controls especially adapted for this purpose, and the Lewellen Manufacturing Company of Columbus, Ind., who are furnishing the variable speed control corrective mechanism. The testing and final adoption of this control and method of wrapping, in production was done with the cooperation of the H. J. Heinz Company of Pittsburgh, Pa., F. A. Higerd being the prime mover.

To do this kind of wrapping, besides the cut-off control, the wrapping machine must work very accurately in placing the sheet of paper around the carton to be wrapped and certain additions are required on the wrapping machine to make this possible. These additions were developed and installed at the H. J. Heinz Company plant where one machine has been in regular production since the first of July and two more units are soon to be installed. The wrapping speed is 72 packages per minute. The automatic wrapping machine is made by the Johnson Automatic Sealer Company of Battle Creek, Mich.

The package being wrapped is the six ounce Heinz Rice Flake Package.

### Paper Made by K. V. P. Co.

The paper for this package is made and processed by the Kalamazoo Vegetable Parchment Company and this paper involves some interesting features in waxed paper printing and waxing. The paper is 35 lb. carton sealing paper waxed with the high gloss water finish. The printing calls for the extreme in waxed paper printing, consisting of a yellow background completely covering a sheet of white paper except for a ½ inch margin on one side in which the photo cell actuating spot appears. The main design is in blue with the lettering in blue and red over print on the yellow background. Perfect registry is required and elimination of all offset is necessary and guaranteed.

Patents on the control equipment for this work have been applied for by the Kalamazoo Vegetable Parchment Company of Kalamazoo, Mich., who are actively sponsoring this new and attractive method of wrapping.

## Bryant Paper Co. Opens New Offices

KALAMAZOO, Mich., October 20, 1930.—The Bryant Paper Company has opened offices in New York and Chicago to be prompt and convenient for contact with the trade.

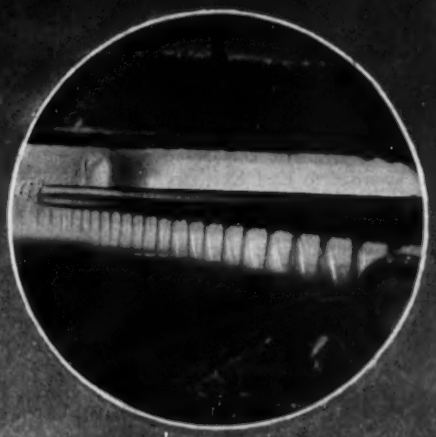
For many years, the Bryant Paper Company has marketed a considerable part of its product through the Seaman Paper Company, and through this agency has developed many pleasant and profitable business affiliations.

The change in the trend of business conditions convinced the company, however, that control of its own sales is essential and will enable it to share with its customers the advantages that may accrue from the closer contact.

The company's policy is designed to protect the established paper merchant and it is the company's intention to promote its sales in a manner that will result to the greatest good for the industry from the standpoint of both the producer and consumer.

During the past several years, the company has expended $4,000,000 in perfecting its equipment, and is now in a very favorable position to furnish almost any quantity or quality of coated, book, lithograph and light-weight printing papers.

The Bryant Paper Company's Chicago office is in the *Daily News* Building, and the New York office is located at 19 East 47th street, telephone Wickersham 1736.



You will be interested in the new Shower Pipe Bulletin, just published.

# Hard to clog— Quick to clear

IT is just as necessary for good results that a Shower Pipe shall do its work steadily as that its top performance shall be high. However efficient a shower may be, no mill can afford to use it if it is liable to clog for trivial causes, or if clearing it means time lost from production.

The M & W "Criss Cross" Shower Pipe cleans effectively and with little water. But it is also a safe, dependable piece of equipment. The patented form of jet permits large orifices to be used, that are not easily clogged. If clogging occurs, it is the work of only a moment to free the jets by pulling a rod to which inside wipers are attached. A stroke or two—and the jets are clear. For flushing the pipe, the end cap is unscrewed or a cleanout valve opened.

We are glad to place a "Criss Cross" Shower Pipe in any mill on 30-day trial. When writing, state width of wire or felt. If the Shower Pipe is to be used in a rotary screen, state make of screen and length of plates.

**THE MOORE & WHITE COMPANY**
*Established 1885*
15th ST. & LEHIGH AVE. PHILADELPHIA, PA.

# "CRISS CROSS" *shower pipes*

# New York Trade Jottings

Allied Mill Supply Corporation, of New York City, has been elected to membership of the National Association of Waste Material Dealers, Inc.

* * *

James P. Heffernan Paper Company have removed their offices from 25 Water street to 11 Broadway, New York. Telephone: Digby 4—2940 and 2941.

* * *

Japan Paper Company, 109 East 31st street, New York, are now importing and carrying in stock Arnold Unbleached, mould made, a pure rag paper from England.

* * *

Dr. Julius Klein, Assistant Secretary of Commerce of the United States, is en route to Europe, where he expects to remain most of the remainder of the year.

* * *

William Martin and John E. Walsh, formerly of Martin-Walsh, Inc., have joined the sales forces of the Walker-Goulard-Plehn Company, Inc., paper merchants, of 448-450 Pearl street, New York.

* * *

Analomink Paper Company, of North Water Gap, Pa., have given the exclusive sale of the products of their mill to Parsons & Whittemore, Inc., of 10 East 40th street, New York. Henry E. Lindquist, of the Domestic Mill Department, will have charge of Analomink sales.

* * *

The Association of American Wood Pulp Importers held a luncheon and meeting at the St. Nicholas Club, New York, last Thursday. Current business conditions were freely discussed and optimism regarding the future was expressed by many of the representatives present.

* * *

E. J. Keller, of the E. J. Keller Company, Inc., 200 Fifth Avenue, New York, sailed to Europe last week aboard the steamer *Bremen*, on a personal matter. Mr. Keller plans to visit Germany, Holland, France and England during his stay abroad and will probably look up some of his trade connections.

* * *

R. S. Kellogg, secretary of the News Print Service Bureau, New York, is scheduled to give an address on the Dard Hunter Hand-Made Paper Mill, at the next meeting and luncheon of the New York Division of the Salesmen's Association of the Paper Industry, which will take place Monday, October 27.

* * *

Net earnings of the Mathieson Alkali Works, Inc., for the quarter ended September 30 were $489,828 after all charges and provision for Federal income taxes. This was equal after provision for preferred dividends to 42c a share on the 650,380 shares of common stock outstanding, and compared with net profits of $609,532, or 90c a share based on the same number of shares. The company earned $1.03 a share in 1929 on 588,328 shares.

* * *

Frank E. Floyd, executive secretary of the National Paper Trade Association of the United States, was the guest speaker at the regular weekly luncheon and meeting of the New York Division of the Salesmen's Association of the Paper Industry last Monday, at the Fraternities Club. Mr. Floyd discussed the relations between the paper merchant and the manufacturer, and his instructive and interesting address was thoroughly enjoyed and appreciated. There was an excellent attendance.

* * *

Johns-Manville Corporation and subsidiaries reports sales for the September quarter of $12,581,620, compared with $13,397,256 in the previous quarter and $17,184,461 in the third quarter of 1929. Net profit after income tax accrual were $1,202,867, compared with $998,530 in the June quarter and $2,483,300 in the September quarter of 1929. Earnings per common share after preferred dividends were $1.43 in the quarter ended September, against $1.16 in the June quarter and $3.14 in the third quarter of 1929. Sales for the nine months to September 30 were $38,143,538 compared with $46,776,102 in the corresponding period of 1929, while profits for the nine months were $2,943,027, or $3.40 a share on the common compared with $5,522,397, or $6.84 a share in the 1929 nine months period.

* * *

Equalization of rates on shipments of wood pulp to North Atlantic ports from Baltic ports has been established by all steamship lines in closing their 1931 contracts. Information to this effect has been received and announced by the Port of New York Authority following conferences in which the steamship companies were urged to restore a parity in rates. Last year a differential of 5c a ton was given to the Ports of Baltimore, Norfolk and Newport News as compared with New York and other ports between Portland and Philadelphia. One of the reasons given for the differences was the variation in stevedoring practices, particularly as between Portland and Baltimore. Most of the Scandinavian pulp is carried by the American Scantic Line, although it is also shared by the Swedish-American Line, Norwegian-American Line, Scandinavian-American Line, Baltic-American Line and the Wilhelmsen Line.

## Injured Paper Mill Workers Awards

[FROM OUR REGULAR CORRESPONDENT]

CANTON, N. Y., October 18, 1930.—At a session of Compensation Court held here this week a number of injured paper mill workers were granted awards by Referee James Richardson. The largest award was given to Fred Pratt, a former employee of the Oswegatchie Paper Company, who received $2,399.80 for injuries received while in the employ of that concern at Natural Dam. The case of George Matovichik, who was injured some time ago at the Pyrites mill of the Degrasse Paper Company, was fully settled with the claimant receiving 328 weeks of compensation at $20 per week. Thirteen weeks of compensation at the rate of $14.76 per week was awarded to Earl Kerr, formerly employed at the Potsdam plant of the Racquette River Paper Company. Morrison Fuller, employed by the International Pulp Company, Gouverneur, was awarded compensation from Aug. 28 to date at the rate of $15.39 weekly and the case continued for treatment. The case of Richard Ashley, an employee of the Racquette River Paper Company, Potsdam, who recently received an award for the loss of his eye, was before the referee for further consideration, continued for further evidence.

## Philip Carey Mfg. Co. Offers Stock

[FROM OUR REGULAR CORRESPONDENT]

DAYTON, Ohio, October 21, 1930—The Philip Carey Manufacturing Company has offered stockholders rights to subscribe to a new issue of common stock on the basis of one share of new for every ten shares held at $200 a share.

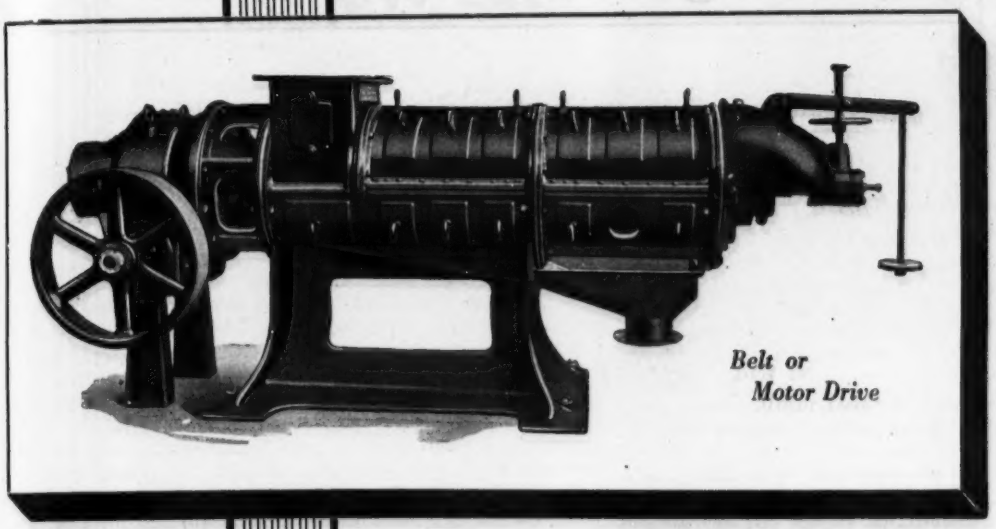
The rights expire on November 15. Directors authorized the sale of 1460 shares of additional common to employes at $22 a share.

It is understood the new capital will be used in making improvements in the company's plant at Lockland, located in the southern part of the Miami Valley.

The Philip Carey Company is one of the leading paper concerns of its kind in the country and has a large branch establishment in this city. It also conducts a paper mill at Franklin, 17 miles south of Dayton, and about 40 miles north of its Lockland mills.

In supplying much of the roofing paper for this part of the country the company finds itself well-engaged, although other important lines are carried.

# CONSISTENCIES
## *as high as 40%*



*Belt or Motor Drive*

***WITH THE***

# VALLEY-VOITH SCREW PRESS

**Remarkable results are being accomplished with the Valley-Voith Screw Press. Consistencies as high as 40% have been obtained.**

**In addition, costs are being greatly reduced. The expense of wires, felts and auxiliary equipment is eliminated . . . much less power is needed . . . labor costs are lower . . . capacity is greater . . . and floor space is reduced. Initial investment, also, is comparatively low.**

**The Valley-Voith Screw Press, in each of its 28 installations, has proved itself the most satisfactory equipment for dewatering pulp both from the standpoint of improved quality and lowered costs.**

**Why not cash-in on these advantages? Why not get the facts and see exactly how superior this Screw Press is over your present equipment. An inquiry addressed to the Valley Iron Works Co., Appleton, Wisconsin will bring these facts to you.**

**VALLEY**

**Equipment for Paper and Pulp Mills**

New York Office: 350 Madison Ave.
Western Mfg. & Sales Div.: Smith & Valley Iron Works, Portland, Ore.
Canadian Representatives: Pulp & Paper Mill Accessories, Ltd., Montreal, Canada

# CONSTRUCTION NEWS

*A Summary of Vital Facts Regarding Construction, Finances and Operation of Paper Mills*

### Construction News

**Lambertville, N. J.**—The Parchment Paper Company, Philadelphia, Pa., has taken over the former local Perserverance Paper Mill, previously owned by the Franklin Paper Company, and will recondition and improve for a plant for the production of processed paper stocks, particularly heavy grease-proof papers. New equipment will be installed and the mill placed in service at an early date. It has been shut down for more than a year. George Leavitt, formerly identified with the plant, will continue with the new owner, supervising the betterment program now in progress.

**Appleton, Wis.**—The Riverside Pulp and Paper Mills, Inc., have approved plans for a new addition to their plant, to be one-story, 55 x 60 feet, designed for storage and distributing service. General contract for erection has been let to the C. R. Meyer & Sons Company, 50 State Street, Oshkosh, Wis., and work will be placed under way at once. Estimated cost has not been announced.

**St. Petersburg, Fla.**—The Manchester Board and Paper Company, St. Petersburg, is planning the early rebuilding of portion of storage and distributing plant on Fleet Street, recently destroyed by fire. An official estimate of loss has not been announced.

**Dayton, Ohio**—The Aetna Paper Company, Dayton, has taken out a permit to make alterations and improvements in its shop building at Cincinnati and Columbia Streets. Contract for the work has been let to Henry Rehling, Dayton.

**New York, N. Y.**—The Cros Paper Products Company, recently organized, has concluded negotiations for a lease of space in the building at 343-49 River avenue, extending through to Canal Place, consisting of two floors, to be equipped and occupied for the production of paper specialties. Operations will be placed under way at an early date. J. C. Hoffman is president.

**North Bergen, N. J.**—The Container Corporation of America, Inc., 111 West Washington street, Chicago, Ill., has taken title to the plant and property of the Gibraltar Corrugated Paper Company, North Bergen, recently acquired and now being operated as a unit of the Container organization. The plant consists of a one-story brick structure, on site 250 x 378 feet, at 1723-25 Bergen Turnpike, near 38th street, and will be developed to maximum capacity by the new owner, or on a basis of about 500 tons per month. The Container Corporation has developed a process for the manufacture of colored corrugated containers and is planning for extensive production in this line, making a display case out of each container unit. These are now being manufactured at the mill at Anderson, Ind., only, but additional production facilities will soon be arranged at the branch plants at Philadelphia, Pa., and Cincinnati, Ohio, for this character of output, as well as at the main factory at Chicago, providing for considerable advance in present capacities at these units. Walter P. Paepcke is president.

**Elsmere, Del.**—The former local plant of the Diamond State Fibre Company at Elsmere, now located at Bridgeport, Pa., was destroyed by fire October 10, with loss estimated at close to $100,000. The mill has been idle for about two years past and is now the property of John M. Taylor, Norristown, Pa. It is situated at Elsmere Junction, near the duPont Road. The destroyed buildings consisted of tube mill, main paper-making building, soaking house, engine and boiler plants. It is not expected to rebuild at the present time.

**Menasha, Wis.**—The Menasha Paper Corporation, Menasha, is having plans prepared for extensions and improvements in its rotary machine room, to provide for increased capacity. It is expected to begin work at an early date. Estimated cost has not been announced. Carl A. Cajamus, Menasha, is in charge of plans.

**Cincinnati, Ohio.**—The Chatfield & Woods Company, 227 West Third street, paper products, identified with the Chatfield Paper Corporation, same address, has asked bids on general contract for a new plant on Arbor avenue, Norwood, consisting of a main one-story factory and two-story office building, reported to cost over $60,000, with equipment. It is proposed to make building award and proceed with work at an early date. John Henri Deekin, 15 East Eighth street, Cincinnati, is architect.

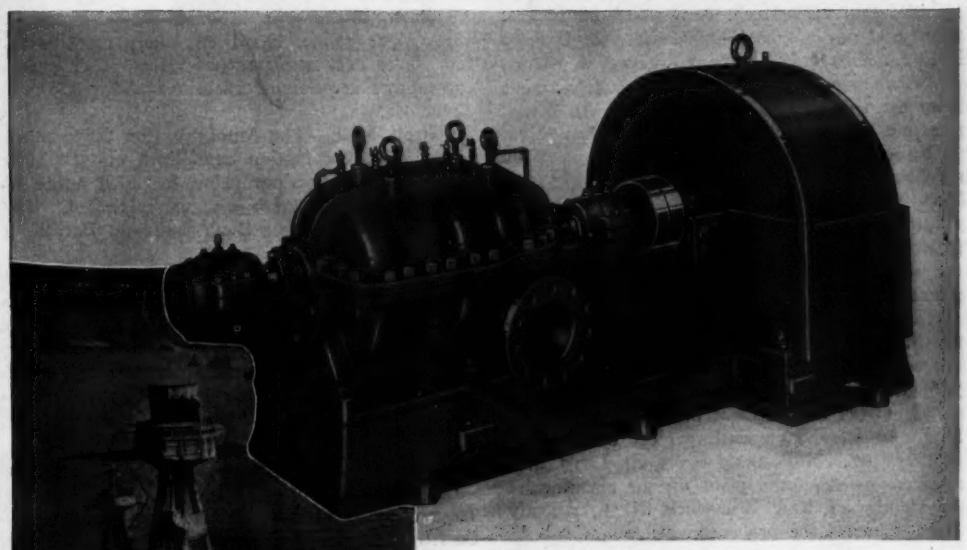
**Newman, Cal.**—The Newman Index Company, Newman, card stocks, etc., has awarded a general contract to Roy Kruger, Gustine, Cal., for the erection of a new one-story shop unit, and will proceed with superstructure at once. Estimated cost has not been announced. Hardman & Russ, Berkeley Bank Building. Berkeley, Cal., are architects.

**Panama City, Fla.**—The Southern Kraft Corporation, Panama City, a subsidiary of the International Paper Company, New York, has a working force of about 600 men engaged in the construction of its new local mill for the manufacture of kraft paper stocks, and is pushing work to maximum. A number of buildings are nearing completion, and initial machinery and equipment is beginning to arrive. Progress is also being made in the construction of approaches to the mill, as well as on docks and other structures. The dock units will be of steel and concrete, and of sufficient size to accommodate two large vessels at one time. The construction program has now been under way for a period of about seven months. It is proposed to have the initial plant units ready for service during the early part of next year. The mill will cost close to $5,000,000.

**Monroe, Mich.**—Fire, October 14, damaged a portion of the stock department at the local mill of the Consolidated Paper Company, totaling more than 500 tons of straw, etc. An official estimate of loss has not been announced, but is reported as slight.

**Cleveland, Ohio**—The Industrial Rayon Corporation, West 98th and Walford streets, manufacturer of viscose products, has completed plans and awarded a general contract to George A. Rutherford, 2725 Prospect avenue, for an addition to the machine room at its local mill, to provide for a proposed development program. It will be one-story, 120 x 124 feet, located at 9801 Walford street, reported to cost over $75,000, with equipment. Work will be placed under way at once. A sub-contract for structural steel has been awarded to the Kilroy Structural Steel

# TERRY



P. & A. Photo

## TERRY TURBINES ARE BACKED BY 22 YEARS GOVERNMENT USE

**For twenty-two years Terry Turbines have been serving the U. S. Navy. On battleships, cruisers, destroyers, and in fact, on almost every type of naval vessel, Terry Turbines have been used extensively for driving the auxiliaries.**

**The latest additions to the fleet—the aircraft carriers and the new light cruisers—all employ Terrys.**

**The same engineering knowledge and manufacturing facilities that produced these turbines are available to assist you in obtaining efficient power generation.**

**The TERRY STEAM TURBINE COMPANY**
TERRY SQUARE, HARTFORD, CONN.
Steam Turbines - Gears - Shaft Couplings

T-1065

Company, 13800 Miles avenue, Cleveland. Christian, Schwarzenberg & Gaede, Union Building, are architects, and engineers.

**Chicago, Ill.**—Bird & Son, Inc., East Walpole, Mass., manufacturer of fiber boxes and containers, etc., will make extensions and improvements in factory branch and distributing plant at 1472 West 76th street, Chicago. Bids have been asked on general contract. Estimated cost has not been announced. W. Gibbons Uffendell, 39 South State street, Chicago, is architect in charge.

**Kaukauna, Wis.**—Fire recently damaged the beater department at the local mill of the Outagamie Paper Company. An official estimate of loss has not been announced, but is reported as slight. The damage will be replaced at once. The mill is operated by the Patten Paper Company, Ltd.

**Kaukauna, Wis.**—The Thilmany Pulp and Paper Company, Kaukauna, is said to have preliminary plans under way for proposed new addition to local mill for wood pulp department, for which plans were recently authorized by the State. Estimated cost has not been announced.

**Rhinelander, Wis.**—The Rhinelander Paper Company is understood to have work well in progress on a new addition to mill, for which erection contract was recently let to the C. R. Meyers & Son Company, 50 State street, Oshkosh, Wis., to be used for increased output. Estimated cost has not been announced.

**Old Bridge, N. J.**—In connection with project of the Anheuser-Busch Company, Inc., 721 Pestlozzi street, St. Louis, Mo., manufacturer of beverages, etc., for a plant for the manufacture of cartons in the vicinity of New Brunswick, N. J., recently referred to in these columns, the proposed new works will be used only in part for such service, according to later reports, with main output of another character. Property is being secured at Old Bridge for the factory, which will cost over $500,000.

**Prague, Czechoslovakia**—The Zilina Cellulose Manufacturing Company, in cooperation with the Czechoslovak Government, is said to have perfected a process for the commercial production of mechanically ground pulp from beech-wood clippings, utilizing a sulphite method. It is proposed to provide mill facilities to begin manufacture at an early date. Beech-wood comprises an important part of Czechoslovak forests and this utilization is expected to develop noticeably reduced production costs.

**Brooklyn, N. Y.**—The Bedford-Robbins Corporation has been organized by local interests headed by Isaac and Harry Robbins, 258 Hooper street, to operate a local plant for the manufacture of paper boxes and containers, as well as paper specialties. It is proposed to begin production at an early date. The company is capitalized at $30,000 and 200 shares of common stock, no par value.

**Chicago, Ill.**—The Continental Fibre Company, manufacturer of insulating products, is now concentrating production at its mills at 308 South Green street, and 2130 North Racine Avenue. Arrangements have just been consummated to dispose of a former plant unit at 1652-58 Besley Court to the Volger-Schillo Company, 1680 Elston Avenue, which will occupy for another branch of service. The Continental company is said to be running at close to normal schedule at its plants.

**New Rochelle, N. Y.**—The East Chester Paper and Cordage Company, New Rochelle, has arranged for a change of company name to the Westchester Paper Company.

**Chewelah, Wash.**—The Thermax Corporation is now running at its recently completed mill at Chewelah, near Spokane, for the manufacture of a new type of insulating board, produced from lumber waste. The mill has a rated output of 30,000,000 square feet a year, and will operate on that schedule with a full working force. The machine division consists of four complete operating units, two being arranged to produce insulating board of 2-inch thickness, and the other two machines, boards of 1-inch thickness; a board of 3-inch thickness will also be produced at the mill by machine adjustments. The material is manufactured in widths of 20, 48 and 64 inches. Headquarters of the company are at 1411 Fourth Avenue, Seattle, Wash

**Brooklyn, N. Y.**—The Rudy Hexagon Box Company has been incorporated with a capital of $20,000, to manufacture and deal in paper boxes, containers, etc. The company is represented by Goldberg & Levitt, 415 Lexington Avenue, New York, attorneys.

**Detroit, Mich.**—The Monroe Waste Paper Company, Inc., 1571 Alger street, has been incorporated with a capital of $50,000, to deal in waste paper and paper products. The incorporators are Samuel Lieberman, Morris D. May and Isaac Greer.

**Detroit, Mich.**—The Autokraft Box Corporation, Lima, Ohio, a Delaware corporation capitalized at $2,000,000 and 300,000 shares of stock, no par value, has filed notice of organization to operate in Michigan with capital noted. The Corporation Trust Company. Dime Bank Building, Detroit, is local representative.

**Kimberley-Clark Corp. Secures Safety award**—At the meeting of the National Safety Council, Pittsburgh, Pa., October 1, an award was made to the Kimberley-Clark Corporation, Niagara Falls, N. Y., in Division A, for companies employing more than 500 men, for safety work at the mill in recent months, which scored high records in the elimination of accidents and disastrous mishaps among the employes.

## Peter G. Thomson Builds Lodge at Holton

DAYTON, Ohio, October 22, 1930—Some time ago Peter G. Thomson, vice-president and manager of sales of the Champion Coated Paper Company, Hamilton, purchased a tract of 2,000 acres near Holton, Ind., for the purpose of converting it into a lodge.

"Old Timbers," he calls it, and this is a suitable name as old timbers are being utilized in the erection of a Lodge, while the tract is covered with forests as old as the hills. In the midst of this Hoosier wilderness, located about 60 miles from Cincinnati, and easily accessible from his home in the Miami Valley, Mr. Thomson is constructing what promises to be the most unique Lodge of its kind in this section of the country.

When Thomson's New York friends find themselves quartered in the depth of the forest near Holton, they will imagine they have been whisked from civilization to the backwoods they used to read about in their youth. On the hills and in the valleys and forests in which Daniel Boone and Davy Crockett used to wander, they will find fascination galore. At this time of the year, particularly, does nature adorn itself in its gayest of fall colors.

The Lodge is 157 feet in length and is built of Indiana limestone, which was quarried out of the river canyon 85 feet below the front porch of the building. The shingles are all hand-split white oak from the Champion forests in North Carolina, where near Canton the Champion Company maintains a modern plant. One may imagine the kind of a roof has been put on this Lodge when it is known that each hand-split shingle is three feet long.

All of the timbers in the Lodge are ancient, most having been taken from old barns more than a century old. The timbers are hand-hewn and give every evidence of long exposure to the weather.

The main room of the Lodge is 63 feet by 23 feet wide, with a great fireplace at each end. Each fireplace is large enough to burn a five-foot log and is equipped with the necessary spits, kettles and Dutch ovens for cooking, although the Lodge has been elaborately equipped with kitchen and serving room.

The manner in which Mr. Thomson plans to entertain may be known when it is stated that the Lodge has sleeping quarters for 40 persons.

It is interesting to note that all of the furniture for the Lodge is of cherry, oak and black walnut and that it was made at Berea, Ky. The upholstery and even the towels were hand-woven by girls and women of the Kentucky mountains.

Members of the trade may look forward to a series of barbecue entertainments at the Lodge, for "Old Timbers" is sure to resound with merriment.

# Hitch YOUR Production Problems To This Emblem...

**If your production plans call for heavy kraft or dainty tissue, board or bond, Fourdrinier, Harper or Yankee, 60" or 304" in breadth, traditional or special specifications,—you can confidently follow the lead of practical, progressive paper men and put your faith in Bagley & Sewall. And should you want such details as the Beloit-type Removable Fourdrinier or the Minton Vacuum Dryer, remember that we are authorized and able to build and install these devices to the complete satisfaction of all concerned.**

**Everywhere throughout the world,—in the States, the Dominion or abroad,—in mills whose outputs run the full gamut of paper possibilities,—you'll find Bagley & Sewall machines producing,—efficiently, consistently, economically. Bagley & Sewall specialization applies only to the highest degree of craftsmanship,—*not to any specific type of machine.***

**More than a century of eternally sticking to one ideal,—the planning and building of paper machines and paper machine equipment just as well as they can possibly be made,—means a lot, not only to us but to you. All the wealth of experience and data that has gathered in that time is willingly at your service,—to take the kinks out of your problems and to make your path of profitable paper production easier. Let us make your problem ours,—write, wire or ask.**

## The Bagley & Sewall Co.

**Watertown, N.Y.**

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# PAPER AND PAPER STOCK IMPORTS AND EXPORTS OF THE UNITED STATES

## For the Month Ending July 31, and for the Seven Months Ending July 31, 1930 as Compared with Corresponding Month of Previous Year

### IMPORTS—PAPER

| | | July | | | | Seven Months Ending July 31 | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 1929 | | 1930 | | 1929 | | 1930 | |
| | | Quantity | Value | Quantity | Value | Quantity | Value | Quantity | Value |
| PAPER AND MANUFACTURES | | ..... | $14,152,739 | ..... | $12,299,117 | ..... | $91,457,983 | ..... | $87,642,027 |
| Printing paper— | | | | | | | | | |
| Standard news print | lbs...free | 420,993,378 | 12,338,494 | 387,190,182 | 11,166,330 | 2,684,424,731 | 80,908,985 | 2,668,816,963 | 77,597,809 |
| *Imports from:* | | | | | | | | | |
| Finland | lbs. | 7,934,754 | 189,203 | 5,549,301 | 127,503 | 37,319,770 | 898,692 | 51,687,360 | 1,193,701 |
| Germany | lbs. | 3,913,597 | 91,110 | 2,521,274 | 60,645 | 11,836,155 | 291,376 | 14,270,591 | 345,415 |
| Norway | lbs. | 39,478 | 928 | 1,539,272 | 35,548 | 4,559,619 | 113,847 | 9,538,035 | 227,732 |
| Sweden | lbs. | 14,267,226 | 361,691 | 11,207,718 | 287,833 | 59,750,284 | 1,520,597 | 82,011,242 | 2,039,199 |
| Canada | lbs. | 357,557,693 | 10,668,383 | 322,463,256 | 9,427,771 | 2,453,056,612 | 74,693,219 | 2,349,456,587 | 69,214,088 |
| Newfoundland and Labrador | lbs. | 37,280,630 | 1,027,179 | 43,909,361 | 1,227,030 | 117,689,491 | 3,286,902 | 161,853,148 | 4,577,734 |
| Other countries | lbs. | ..... | ..... | ..... | ..... | 212,800 | 4,352 | ..... | ..... |
| All other, n. e. s. | lbs...dut. | 410,793 | 21,600 | 262,554 | 15,443 | 2,640,646 | 126,020 | 1,606,051 | 79,912 |
| Greaseproof and waterproof papers | lbs...dut. | 216,982 | 54,393 | 34,910 | 8,053 | 913,127 | 200,138 | 773,005 | 250,857 |
| Kraft wrapping paper | lbs...dut. | 1,122,656 | 51,557 | 192,047 | 7,203 | 5,733,880 | 248,919 | 4,807,971 | 190,589 |
| Other wrapping paper | lbs...dut. | 564,845 | 11,751 | 55,277 | 8,689 | 4,209,636 | 115,297 | 1,360,023 | 84,506 |
| Writing and drawing papers, etc. | lbs...dut. | 241,180 | 72,833 | 222,840 | 63,009 | 1,818,870 | 466,719 | 2,219,589 | 562,893 |
| Writing paper and envelope combinations | dut. | ..... | ..... | ..... | 40,187 | ..... | ..... | ..... | 43,055 |
| Surface-coated paper | lbs...dut. | 178,448 | 75,749 | 143,442 | 63,514 | 1,535,078 | 642,781 | 1,234,496 | 495,364 |
| Uncoated paper, decorated or embossed | lbs...dut. | ..... | ..... | 9,516 | 3,830 | ..... | ..... | 19,176 | 6,774 |
| Tissue and similar papers | lbs...dut. | 435,619 | 225,567 | ..... | ..... | 2,657,856 | 1,414,469 | 2,056,030 | 1,130,184 |
| Weighing not over 6 pounds to the ream | lbs...dut. | ..... | ..... | 145,323 | 84,026 | ..... | ..... | 202,896 | 111,649 |
| Other | lbs...dut. | ..... | ..... | 54,647 | 19,726 | ..... | ..... | 78,089 | 28,662 |
| Paper boards, n. e. s.— | | | | | | | | | |
| Pulp board, in rolls | lbs...dut. | 4,809,536 | 95,481 | 2,311,294 | 48,159 | 35,894,168 | 784,993 | 29,250,386 | 664,444 |
| Paper board, pulp board, n. e. s., and card board | lbs...dut. | 1,371,324 | 31,112 | 637,135 | 20,353 | 13,369,723 | 304,670 | 8,712,509 | 210,282 |
| Leather board, test and wall board | lbs...dut. | 229,400 | 9,512 | 303,032 | 18,733 | 1,090,841 | 43,581 | 1,109,934 | 60,605 |
| Cigarette paper, cigarette books, and covers | lbs...dut. | 1,328,825 | 471,654 | 1,053,927 | 341,810 | 6,775,147 | 2,250,290 | 7,620,359 | 2,594,032 |
| Hanging paper (wall paper) | lbs...dut. | 264,772 | 54,242 | 74,826 | 31,425 | 1,606,139 | 439,021 | 1,477,855 | 432,252 |
| Duplex decalcomania paper, not printed | lbs...free | 59,502 | 14,293 | 70,502 | 17,407 | 417,668 | 105,509 | 335,507 | 80,438 |
| Paper boxes | dut. | ..... | 167,264 | ..... | 57,833 | ..... | 995,503 | ..... | 777,503 |
| Papier-mache and pulp manufactures, n. e. s. | dut. | ..... | 51,480 | ..... | 38,490 | ..... | 343,720 | ..... | 358,940 |
| All other paper and manufactures | dut. | ..... | 405,757 | ..... | 244,897 | ..... | 2,167,368 | ..... | 1,881,217 |

### WOOD PULP

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Mechanically ground wood pulp | tons..free | 16,718 | 428,234 | ..... | ..... | 128,246 | 3,254,831 | 128,866 | 3,595,323 |
| Unbleached | tons..free | ..... | ..... | 14,967 | 422,413 | ..... | ..... | 20,913 | 595,266 |
| Bleached | tons..free | ..... | ..... | 378 | 9,249 | ..... | ..... | 555 | 14,232 |
| Sulphite wood pulp | tons | 102,010 | 5,935,616 | 76,404 | 4,402,487 | 595,870 | 34,945,665 | 582,207 | 33,884,504 |
| Unbleached | tons..free | 74,197 | 3,792,656 | 51,176 | 2,628,453 | 400,030 | 20,094,020 | 391,985 | 20,144,514 |
| Bleached | tons..free | 27,813 | 2,142,960 | 25,228 | 1,774,034 | 195,840 | 14,951,645 | 190,222 | 13,739,990 |
| *Imports from:* | | | | | | | | | |
| Finland | tons | 8,503 | 433,211 | 8,284 | 419,063 | 65,572 | 3,145,693 | 59,554 | 3,013,573 |
| Germany | tons | 6,834 | 468,768 | 4,682 | 300,153 | 38,438 | 2,670,341 | 39,498 | 2,649,455 |
| Norway | tons | 4,897 | 328,089 | 4,920 | 322,547 | 35,135 | 2,387,240 | 39,571 | 2,538,992 |
| Sweden | tons | 48,985 | 2,649,758 | 27,897 | 1,523,811 | 230,743 | 12,718,586 | 215,917 | 11,845,474 |
| Canada | tons | 31,969 | 1,998,717 | 29,035 | 1,756,161 | 213,089 | 13,323,779 | 217,134 | 13,288,254 |
| Other countries | tons | 822 | 47,073 | 1,586 | 80,752 | 12,899 | 700,026 | 10,533 | 548,756 |
| Sulphate wood pulp, unbleached (kraft pulp) | tons..free | 39,360 | 2,043,267 | 20,715 | 977,694 | 206,401 | 11,216,677 | 195,680 | 9,807,660 |
| *Imports from.* | | | | | | | | | |
| Finland | tons | 1,632 | 77,674 | 1,392 | 53,810 | 13,947 | 659,241 | 21,952 | 988,049 |
| Norway | tons | 958 | 54,301 | 1,192 | 50,141 | 8,622 | 465,359 | 7,970 | 371,065 |
| Sweden | tons | 26,531 | 1,300,778 | 13,621 | 593,493 | 115,927 | 5,919,373 | 119,461 | 5,674,288 |
| Canada | tons | 9,592 | 582,677 | 4,510 | 280,250 | 67,158 | 3,999,814 | 43,425 | 2,646,794 |
| Other countries | tons | 647 | 27,837 | ..... | ..... | 3,747 | 172,860 | 2,872 | 127,464 |
| Sulphate wood pulp, bleached | tons..free | 1,853 | 135,680 | 1,073 | 95,306 | 9,927 | 736,524 | 8,800 | 677,930 |
| Soda pulp | tons..free | ..... | ..... | 231 | 16,265 | ..... | ..... | 483 | 33,257 |
| Other pulp | tons..free | 592 | 67,885 | 25 | 3,803 | 3,608 | 300,884 | 2,191 | 161,104 |

### CRUDE PAPER STOCK

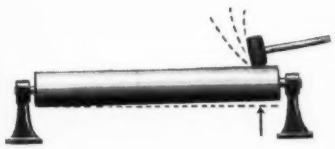
| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Rags for paper stock | lbs...free | 41,387,217 | 862,276 | 18,525,668 | 421,875 | 253,117,061 | 5,130,634 | 208,329,622 | 4,363,772 |
| All other paper stock | lbs...free | 30,723,659 | 611,883 | 28,181,962 | 290,442 | 159,314,239 | 3,200,758 | 162,537,150 | 2,240,706 |

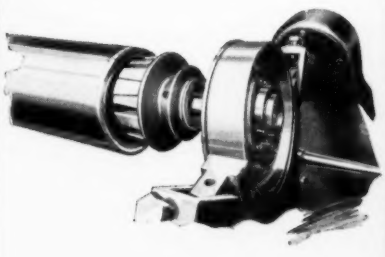
### CHEMICALS AND OTHER PAPER MAKERS' MATERIALS

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Colors, dyes, stains, color acids, and color bases, n. e. s. | lbs...dut. | 574,254 | 555,282 | 373,914 | 380,559 | 4,751,363 | 5,337,745 | 3,023,958 | 3,177,128 |
| *Imports from:* | | | | | | | | | |
| Belgium | lbs. | 6,238 | 8,616 | 2,204 | 3,046 | 36,101 | 46,946 | 33,229 | 41,158 |
| France | lbs. | 20,455 | 25,776 | ..... | ..... | 83,836 | 113,232 | 13,551 | 17,816 |
| Germany | lbs. | 263,693 | 268,960 | 246,822 | 271,009 | 3,229,286 | 3,572,540 | 1,905,950 | 2,016,819 |
| Italy | lbs. | 3,193 | 2,461 | 6,406 | 6,847 | 8,228 | 7,074 | 6,538 | 6,962 |
| Switzerland | lbs. | 265,732 | 235,255 | 100,072 | 85,801 | 1,301,594 | 1,496,082 | 980,108 | 1,018,086 |
| United Kingdom | lbs. | 11,445 | 10,820 | 6,147 | 7,042 | 54,986 | 60,819 | 48,684 | 48,557 |
| Other countries | lbs. | 3,498 | 3,394 | 12,263 | 6,814 | 37,332 | 41,052 | 35,898 | 27,730 |
| Casein or lactarene | lbs...dut. | 1,172,082 | 144,161 | 9,312 | 1,166 | 19,434,801 | 2,324,779 | 16,104,774 | 1,786,674 |
| China clay or kaolin | tons..dut. | 16,087 | 180,049 | 8,385 | 91,362 | 153,838 | 1,674,979 | 145,010 | 1,518,662 |

*(Continued on page 37)*

# The A-B-C's of DYNAMIC BALANCE





**A** is to emphasize the importance of having a roll in balance while turning as well as when it is standing still. How this is done and why it is important is explained in the August "Messenger." Did you get your copy?

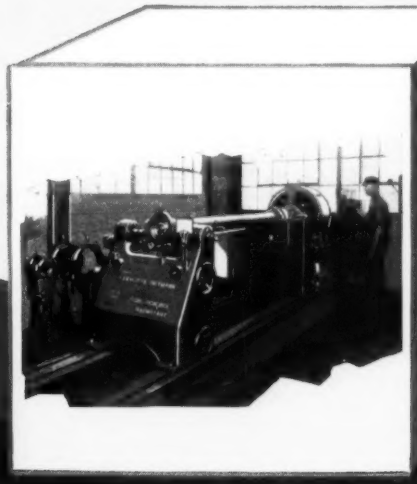
**B** is to suggest the incessant heavy pounding of an out-of-balance roll on the bearings which action is bound to injure or destroy any bearing subjected to such punishment—throwing it out of level and out of parallel.

**C** is to suggest a roll out of level—where the bearing on one end has given way, allowing the roll to drop down. Pressure on the felt, or on the sheet, is no longer the same clear across the machine when such a condition develops.

**D** is a view of patented roll head used by The Black-Clawson Company to apply weight exactly, and permanently, where it belongs when balancing rolls while turning (dynamically).

**E** is the balancing machine itself—the only one of its kind in America in use among builders of paper mill equipment.

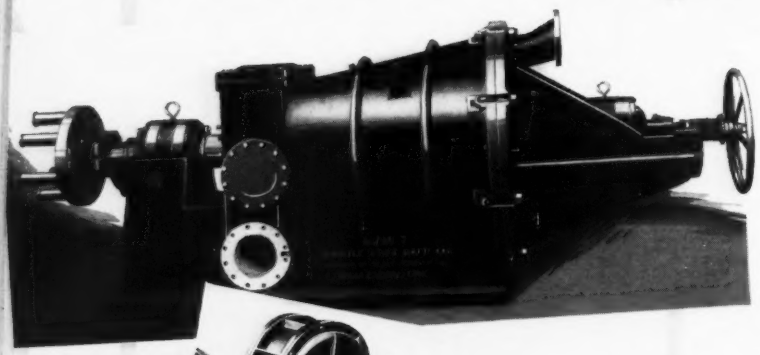
Do not underestimate the importance of having felt, couch, press, table and other rolls in balance while turning. This subject is attaining greater and greater importance every day. Have us tell you more.

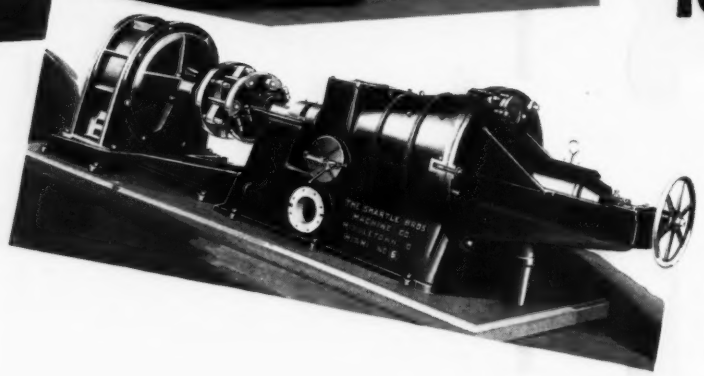


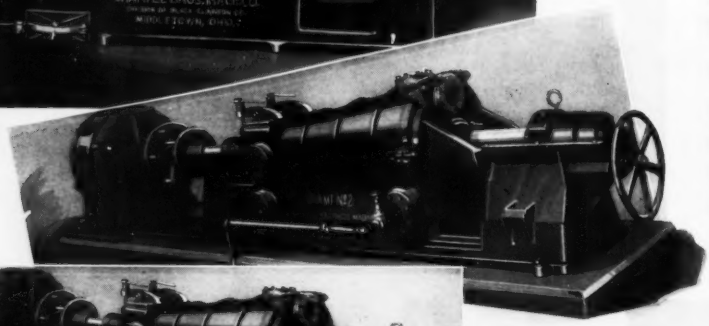
**THE BLACK-CLAWSON CO.**
**HAMILTON, OHIO.**
EXPORT OFFICE - 15 PARK ROW NEW YORK N.Y.
OWNERS OF SHARTLE BROS. MACHINE CO. MIDDLETOWN, OHIO

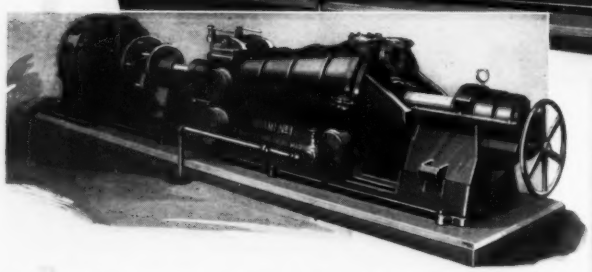
# THE ONLY BUILDER WITH A COMPLETE LINE

## —AND THE LOGICAL PLACE TO BUY YOURS









### THE NEW No. 7 QUICK TAPER MIAMI

There is a reason for most things. There is a reason why the No. 6 Miami Jordan has jumped from 3% of our jordan production in 1925 to over 80% in 1930.

The mill that ordered twenty No. 6's over the phone last spring, and recently followed up that order with another one for twenty more, could give you a convincing reason for their action.

We are pushing the No. 6 type, which includes the new No. 7, because a quick taper jordan does the job better and cheaper.

Write for list of users.

# MIAMI JORDANS

**BECAUSE NO ONE JORDAN CAN MEET ALL REQUIREMENTS, SHARTLE BUILDS FIVE FROM WHICH TO CHOOSE**

**SHARTLE BROTHERS MACHINE CO.**
MIDDLETOWN, OHIO
DIVISION OF THE BLACK-CLAWSON CO.
HAMILTON, OHIO
EXPORT OFFICE—15 PARK ROW—NEW YORK CITY

# PAPER AND PAPER STOCK IMPORTS AND EXPORTS OF THE UNITED STATES

(Continued from page 34)

## EXPORTS—PAPER

| | July 1929 Quantity | July 1929 Value | July 1930 Quantity | July 1930 Value | Seven Months Ending July 31 1929 Quantity | Seven Months Ending July 31 1929 Value | Seven Months Ending July 31 1930 Quantity | Seven Months Ending July 31 1930 Value |
|---|---|---|---|---|---|---|---|---|
| PAPER AND MANUFACTURES | ..... | $3,141,868 | ..... | $2,412,479 | ..... | $21,972,135 | ..... | $19,135,368 |
| Printing paper— | | | | | | | | |
| News print paper ..... lbs. | 2,588,222 | 105,795 | 1,276,173 | 50,507 | 19,619,020 | 736,538 | 13,462,523 | 549,825 |
| *Exports to:* | | | | | | | | |
| Europe ..... lbs. | 264,232 | 18,765 | 165,768 | 9,273 | 548,008 | 36,078 | 1,135,862 | 63,660 |
| Canada ..... lbs. | 18,235 | 707 | 29,006 | 1,088 | 455,713 | 21,153 | 48,251 | 1,931 |
| Central America ..... lbs. | 238,131 | 8,482 | 37,598 | 1,428 | 801,426 | 28,599 | 910,981 | 33,140 |
| Cuba ..... lbs. | 136,555 | 6,382 | 320,290 | 10,853 | 1,891,226 | 69,672 | 2,073,561 | 83,302 |
| South America ..... lbs. | 551,625 | 21,773 | 292,326 | 10,954 | 5,140,861 | 191,489 | 3,104,487 | 105,413 |
| China, Hong Kong, and Kwantung... lbs. | 362,362 | 12,036 | ..... | ..... | 3,658,078 | 123,172 | 1,735,402 | 98,653 |
| Philippine Islands ..... lbs. | 632,910 | 21,312 | 374,035 | 13,779 | 5,859,060 | 209,698 | 3,865,491 | 136,680 |
| Other countries ..... lbs. | 384,172 | 16,338 | 57,150 | 3,132 | 1,264,648 | 56,677 | 588,488 | 27,046 |
| Book paper, not coated ..... lbs. | 3,279,804 | 245,039 | 1,904,401 | 128,601 | 22,325,535 | 1,582,254 | 21,510,644 | 1,454,442 |
| *Exports to:* | | | | | | | | |
| Europe ..... lbs. | 157,746 | 12,972 | 68,222 | 6,870 | 1,156,791 | 95,033 | 457,206 | 42,263 |
| Canada ..... lbs. | 572,068 | 34,535 | 828,080 | 49,487 | 7,131,053 | 432,670 | 6,307,413 | 391,334 |
| Mexico ..... lbs. | 41,535 | 4,450 | 42,237 | 4,344 | 345,028 | 35,514 | 444,745 | 48,061 |
| Cuba ..... lbs. | 378,420 | 30,594 | 391,492 | 26,189 | 2,855,249 | 204,929 | 2,746,311 | 188,194 |
| Argentina ..... lbs. | 59,229 | 4,995 | 225,304 | 15,476 | 1,423,252 | 112,127 | 1,028,911 | 74,821 |
| Other South America ..... lbs. | 215,753 | 17,303 | 183,746 | 13,610 | 881,965 | 73,277 | 1,235,815 | 95,412 |
| China, Hong Kong, and Kwantung... lbs. | 1,102,392 | 67,201 | 4,800 | 544 | 4,154,469 | 251,063 | 4,523,547 | 278,294 |
| Philippine Islands ..... lbs. | 500,768 | 40,851 | 56,527 | 4,237 | 2,617,611 | 180,782 | 2,449,253 | 158,731 |
| Australia ..... lbs. | 137,852 | 22,262 | 3,127 | 512 | 826,364 | 115,795 | 561,326 | 43,398 |
| Other countries ..... lbs. | 114,041 | 9,876 | 100,866 | 7,332 | 933,753 | 81,064 | 1,756,117 | 133,934 |
| Cover paper ..... lbs. | 153,582 | 27,816 | 160,619 | 25,180 | 1,178,531 | 202,373 | 1,406,900 | 224,920 |
| Greaseproof and waterproof paper ..... lbs. | 320,435 | 56,699 | 365,639 | 64,040 | 1,689,714 | 310,055 | 2,062,849 | 398,982 |
| Overissue and old newspapers ..... lbs. | 16,270,924 | 167,439 | 11,863,479 | 90,569 | 86,982,084 | 970,230 | 95,735,413 | 807,786 |
| Wrapping paper ..... lbs. | 3,369,455 | 240,517 | 3,911,018 | 222,456 | 24,867,552 | 1,723,460 | 27,451,480 | 1,726,737 |
| Surface-coated paper ..... lbs. | 1,055,767 | 103,574 | 647,644 | 78,302 | 10,434,486 | 951,675 | 5,625,054 | 621,688 |
| Tissue and crepe paper ..... lbs. | 375,666 | 96,986 | 389,279 | 87,420 | 2,565,126 | 573,178 | 2,953,210 | 568,670 |
| Toilet paper ..... lbs. | 776,689 | 86,641 | 512,550 | 55,057 | 4,348,203 | 489,802 | 4,465,251 | 485,187 |
| Paper towels and napkins ..... lbs. | 292,041 | 42,831 | 444,457 | 45,591 | 1,972,956 | 241,292 | 2,498,288 | 278,168 |
| Boxboard of paperboard and strawboard ..... lbs. | 5,496,397 | 145,215 | 6,081,849 | 151,281 | 33,063,278 | 878,313 | 41,547,847 | 1,022,080 |
| Bristols and bristol board ..... lbs. | 192,643 | 25,825 | 201,197 | 16,833 | 1,780,540 | 176,394 | 1,409,672 | 130,207 |
| Other paper board ..... lbs. | 3,807,104 | 178,735 | 2,921,097 | 135,730 | 24,531,897 | 1,165,523 | 22,522,029 | 1,076,893 |
| Sheathing and building paper ..... lbs. | 1,451,952 | 49,534 | 1,489,446 | 48,128 | 13,866,210 | 476,478 | 11,702,548 | 407,503 |
| Fiber insulating lath or board ..... sq. ft. | 1,952,273 | 75,061 | 4,843,641 | 160,090 | 13,301,113 | 444,070 | 39,644,667 | 1,261,205 |
| Wall board of paper or pulp ..... sq. ft. | 6,557,595 | 203,352 | 2,433,438 | 90,665 | 39,314,577 | 1,274,592 | 18,050,981 | 595,726 |
| Blotting paper ..... lbs. | 269,457 | 35,662 | 279,249 | 36,230 | 2,212,023 | 259,568 | 1,956,063 | 233,476 |
| Filing folders, index cards, and other office forms ..... lbs. | 130,425 | 49,822 | 100,902 | 40,478 | 949,077 | 352,020 | 943,973 | 365,503 |
| Papeteries (fancy writing paper) ..... lbs. | 58,935 | 15,177 | 55,084 | 11,296 | 370,963 | 100,167 | 373,775 | 78,589 |
| Other writing paper ..... lbs. | 2,190,099 | 231,658 | 1,633,512 | 155,142 | 17,131,842 | 1,810,220 | 13,546,764 | 1,342,103 |
| Paper hangings (wall paper) ..... rolls | ..... | 29,303 | 95,232 | 16,764 | ..... | 428,369 | 2,160,173 | 334,618 |
| Paper bags ..... lbs. | 1,304,751 | 95,431 | 927,814 | 68,224 | 6,999,027 | 597,498 | 5,748,461 | 482,588 |
| Boxes and cartons ..... lbs. | 2,835,619 | 183,434 | 2,500,953 | 125,492 | 17,993,003 | 1,155,468 | 15,177,708 | 858,499 |
| Envelopes ..... lbs. | 223,673 | 39,052 | 160,009 | 26,287 | 1,450,310 | 251,120 | 1,376,906 | 225,573 |
| Vulcanized fiber sheets, strips, rods, and tubes ..... lbs. | 497,572 | 121,099 | 432,261 | 102,475 | 3,731,821 | 921,179 | 2,839,892 | 698,487 |
| Cash-register and adding-machine paper ..... lbs. | 530,535 | 55,119 | 426,776 | 39,653 | 2,983,986 | 296,080 | 3,331,546 | 298,105 |
| Other paper and paper products ..... | ..... | 435,052 | ..... | 339,988 | ..... | 3,605,219 | ..... | 2,607,808 |
| **WOOD PULP AND PAPER STOCK** | | | | | | | | |
| Sulphite wood pulp ..... tons | 3,222 | 188,016 | 1,804 | 95,594 | 26,148 | 1,373,471 | 18,653 | 1,026,557 |
| Soda wood pulp ..... tons | 94 | 7,620 | 121 | 9,931 | 1,043 | 83,651 | 1,534 | 119,267 |
| Other wood pulp ..... tons | 1,021 | 72,017 | 1,826 | 39,745 | 4,250 | 291,125 | 6,196 | 218,912 |
| Rags and other paper stock ..... lbs. | 6,405,489 | 115,301 | 6,630,926 | 82,950 | 66,862,440 | 1,246,807 | 38,046,410 | 562,101 |
| **PAPER AND PULP MILL MACHINERY** | | | | | | | | |
| Paper and pulp mill machinery ..... | ..... | 293,621 | ..... | 345,342 | ..... | 1,901,703 | ..... | 1,943,187 |

## A. P. W. Co. Elects Officers

[FROM OUR REGULAR CORRESPONDENT]

ALBANY, N. Y., October 11, 1930.—A number of important changes were made in the executive staff of the A. P. W. Paper Company at the annual organization meeting held this week. Ledyard Cogswell, prominent business man of this city, was chosen chairman of the board of directors while others re-elected included Seth Wheeler, Jr., Horace Ford, of Boston; William L. Gillspie, of Albany; Louis A. Jones, of New York; R. B. Wilson, of Boston, and G. E. Edmunds.

While no official announcement was made regarding the new officers it was learned from a reliable source that the staff will be as follows: N. C. Clement, president; Seth Wheeler, Jr., vice president; F. Garner Perry, treasurer; Spencer Gunn, secretary; A. B. Wheeler, assistant secretary, and George Bishop, assistant secretary. The new additions to the directorate are Louis Barbour, of Boston, and R. W. Bell, general plant manager. V. D. Bierman, former treasurer, is reported to have resigned.

## Unity Mills to Continue Operations

[FROM OUR REGULAR CORRESPONDENT]

POTSDAM, N. Y., October 11, 1930.—It was announced this week that the Unity Paper Mills of this village would continue operations for an indefinite period following the grant of an extension to the receivers by Federal Judge F. D. Bryant. It was hinted, however, that the court would expect some settlement within a short time inasmuch as the original extension period expires this week. The company encountered financial difficulties about a year ago and has been operating under the hands of receivers in equity since.

It is reported on good authority that reorganization plans are being considered which will aid in clearing away the present difficulties if effected. Since the mill was thrown into the hands of the federal court its business has shown gains and there is every indication that operations will be continued. The receivers of the firm are Hollis W. Martin, of Norwood, and Bernard Wade, of this village.

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## DO YOUR PART NOW

It would appear that the kraft paper industry is now in the greatest crisis of its history. The immediate future will determine whether that crisis has been surmounted or not. If it is surmounted, everything indicates an orderly, healthy and progressive improvement in the serious conditions which have been affecting the industry almost to the point of demoralization. If it is not surmounted, the industry can expect little short of chaos.

The choice of these two roads depends upon the industry itself and upon the determination of every factor in the industry to avail itself of the present improvement in the market situation and then to deal with the common and pressing problems of the industry, with a united and harmonious effort to conquer them.

It is a mere commonplace truth, applicable to the kraft paper industry as to every other competitive industry in this country, that in the present business emergency, whatever business does in fact exist ought, for the welfare of the industry and of the country itself, to be handled at reasonably profitable prices. This can be done in the kraft industry if the sales prices of its commodities shall be governed by current market prices and not be subjected to uneconomic, short-sighted and selfish efforts at supposed advantage of obtaining business by any kind of method and at any kind of price. The latter course leads to fundamental damage not only to each and every factor in the industry, but also to the communities in which its mills are located, to the labor which it employs, and, to a very appreciable extent, to the country itself.

It is uniform history that when price-slashing begins, everybody follows. This means that all the kraft mills will meet any delivery prices in order to protect their accounts.

There is no question but that the committee of the industry appointed at the recent joint meeting of the Southern and National kraft associations in Chicago can develop a formula which will solve the immediate and pressing problems of the industry, and prove acceptable to all units and groups in the industry as a just and lawful basis for such measures as may be necessary to balance production with demand, and thus eliminate the cut-throat competition engendered by the present condition of excess capacity and production.

It is the obvious duty of every mill to investigate conditions thoroughly before even contemplating any action which would disturb the present situation. Merchants' stocks are exceedingly low, and the upturn in general business conditions has already commenced. This new demand can be taken at profitable prices—or the industry can be plunged into the most horrible condition of demoralization imaginable, with the only prospect a bitter fight to the finish, from which no one could gain and everybody would lose—everybody including the industry, the communities whose welfare it promotes, the labor which it employs and the country itself.

Accordingly, every element in the industry should deem it to be its plain and urgent duty to do its full part at once towards making every favorable factor now existing, solid and secure, and upon that basis to build up the kraft paper industry to the wholesome condition which it justly deserves.

## FOREIGN PAPER TRADE DECLINE HALTS

By the end of August the year's exports of paper and paper products had fallen $3,271,971, or 13 per cent, short of last year's record for the corresponding eight month period, according to the Paper Division of the Department of Commerce. In this loss there were represented sharp decreases in shipments of wall board, of paper and pulp, which declined 54 per cent, surface coated paper, which had taken a 33 per cent downward drop, all writing papers, which had lost by approximately 27 per cent, boxes, cartons and news print all of which fell off 25 per cent, bristol and bristol board, and vulcanized fiber sheets, strips, rods and tubes, with decreases of approximately 21 per cent. The only notable increases during this period were in fiber insulating lath or board, and grease-proof and waterproof paper, which were 142 per cent and 30 per cent higher, respectively. Slight increases during this eight month period were noted in cover paper, wrapping paper, paper towels and napkins, boxboard of paperboard and strawboard and filing folders, index cards and other office forms.

In the month of August, the gradual decline in the total exports of paper and paper products, which has been apparent for several months past, was brought to a halt, and a 2 per cent gain registered over July shipments brought evidence of starting an upward trend again. The total shipments for this month, however, represented a 15 per cent decrease over August, 1929. As compared with the preceding month's shipments, the following gains are to be noted: sheating and building paper 66 per cent; wall paper, 46 per cent; news print, 30 per cent; book paper, uncoated 24 per cent; fancy writing paper, 27 per cent; paper bags, 22 per cent; greaseproof and waterproof paper, 17 per cent; toilet paper, 12 per cent; overissue newspaper, 12 per cent; filing folders, index cards and other office forms, 8 per cent; other writing paper, 2 per cent and envelopes, 3 per cent, and vulcanized fiber sheets, strips, rods and tubes, 2 per

cent; while the only items which showed substantial increases over the shipments of August, 1929, were toilet paper, 50 per cent; greaseproof and waterproof 42 per cent; and sheating and building paper, 27 per cent.

Paper base stock exports did not, however, fare as well during the month of August, but on the other hand, registered a spectacular decline, amounting to only $165,134, as against $646,010 during the preceding month and $400,009, the corresponding month last year. This was mostly accounted for by a crash in the exports of pulpwood, which went down from $417,850 in July to $896 in August and which were 85 per cent below August shipments last year. Rags also struck a new low level. During the eight month period ended August 31, the exports of paper base stocks decreased 12 per cent as compared with the same period last year. Pulpwoods and soda pulp made considerable gains during this period.

The total imports of paper and paper products during August amounted to $10,892,707, which was 15 per cent below those of August, 1929, and 11 per cent lower than the preceding month's record. A 5 per cent decrease was noted in the eight month period as compared with last year. The heaviest increase in August was in Kraft wrapping, which gained 280 per cent as compared with July shipments, but was still 28 per cent below the corresponding month last year. The only other notable increase as compared with July occurred in imports of paper boxes, which were 84 per cent higher. Imports which ran considerably below the preceding month's level were as follows: other wrapping, 60 per cent; leather boards, test and wall board, 54 per cent; pulpwood in rolls, 27 per cent; and standard newsprint, 12 per cent; while comparison with the corresponding month's record last year reveals a 90 per cent decrease in greaseproof, and waterproof, 52 per cent in other wrapping, 61 per cent in paper board, pulpwood and cardboard, 32 per cent in cigarette paper, 31 per cent in paper boxes and 20 per cent in standard newsprint.

Imports of paper base stocks during August showed great fluctuations in many instances as compared with the preceding month. Unbleached sulphate pulp (Kraft) gained 54 per cent. bleached ground wood pulp, 375 per cent; and soda pulp, 53 per cent while a 33 per cent decline was brought about in sulphate wood pulp. As compared with the corresponding month last year heavy increases occurred in the imports of pulpwoods, peeled spruce and other spruce, which also made gains during the eight month period ended August 31, as compared with the corresponding period last year.

## TO TRAIN FORESTRY LEADERS

Eight fellowships for the training of leaders in forestry have been awarded for the year 1930-31 by the Charles Lathrop Pack Forest Education Board, and the Board is preparing to receive applications for fellowships for the year 1931-1932. The fellowships already granted cover a wide range of practical and theoretical forestry, including reforestation, management of private forest estates, co-operative marketing of forest products, silvicultural management, and forest pathology.

Six to eight fellowships, with stipends ranging from $500 to $2,500, are available for the coming year. The purpose of the fellowships is to encourage men who have shown unusual intellectual and personal qualities to obtain training that will best equip them for responsible work, either in the general practice of forestry, in the forest industries, in the teaching of forestry, in forest research, or in the development of public forest policy.

Awards will be made to gifted men who demonstrate natural powers of intellectual and personal leadership and who intend to make forestry their life work. Special emphasis will be placed on character, intellect, imagination, initiative, industry, resourcefulness, adaptability, ability to deal with men, ability to assume responsibility, and personal interest in forestry. The fellowships will ordinarily be restricted to men of American or Canadian citizenship.

Applications will be received not later than January 15, 1931. Application forms and detailed announcements can be obtained from Ward Shepard, Secretary of the Charles Lathrop Pack Forest Education Board, 1214 Sixteenth street, N. W., Washington, D. C.

## Business Improves in Miami Valley

[FROM OUR REGULAR CORRESPONDENT]

DAYTON, Ohio, October 21, 1930—Business conditions are gradually on the mend. It is believed that the paper manufacturing trade was not affected as badly as many other lines of industry.

The mills in Middletown have been running five days a week right along, and this means a considerable contribution to the business stability of that section of the Miami Valley.

In Hamilton, conditions have been very satisfactory, particularly as pertains to the two leading paper mills and allied industries—The Champion Coated Paper Company, and the Black-Clawson Company, manufacturers of paper mill machinery. The Shartle Company, a subsidiary of the Black-Clawson Company, also has been operating on a satisfactory run of orders. The Beckett Paper Company also has been making good progress.

The Sorg mills, the Gardner-Harvey interests, the Wrenn mill and Oglesby and Smith concerns have been operating on a fair grist of orders in Middletown; most of the Franklin mills also have been in continual operation and those in Dayton have not suspended.

It would be easy to mention a long list of factories in other lines which have not been doing so well. Paper mill products and publishing outputs have been in fair demand throughout the so-called period of depression.

## Conklingville Reservoir Aids Paper Mills

[FROM OUR REGULAR CORRESPONDENT]

HUDSON FALLS, N. Y., October 11, 1930—Now that the official report of the Hudson River Regulating Board has proven the value of the Conklingville Reservoir in keeping paper mills and other industries running during periods of drought it is expected that an early announcement will be made by the Niagara-Hudson Power Company regarding the starting of its proposed $5,000,000 hydroelectric development in this village. It has been reported that the development in the river at this point depended to a great extent upon the certainty that there would be sufficient water in the river at all times of the year to operate a large power station and the report of the Regulating Board is said to clear up this situation.

Because the Conklingville Reservoir impounds millions of cubic feet of water ready to be released when the level of the Hudson River below Luzerne falls the paper mills along the stream are assured of a constant supply of water and curtailment which previously existed during low water periods has been eliminated. Rumors have been current here that work on the development would be started immediately but a survey of the site of the proposed dam revealed that nothing has been done as yet.

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Section of the
Technical Association of the Pulp and Paper Industry
Edited by Ronald G. Macdonald, Secretary

# United States Patents On Paper Making

## Third Quarter, 1930

**Compiled by Clarence J. West, Chairman, Committee on Abstracts and Bibliography.**

NOTE:—Copies of any of the following patents may be obtained from the U. S. Patents Office, Washington, D. C., at ten cents (in currency) each.

### JULY 1, 1930

1,768,804. Method of charging cellulose boilers and the like and device adapted therefor. Sjune Svensson, Krokom, Sweden. Filed June 6, 1928. 3 claims. (Cl. 92-7).

1,768,819. Bleaching. Linn Bradley and Edward P. McKeefe, assignors to Bradley-McKeefe Corporation, New York, N. Y. Filed Mar. 2, 1921. Renewed Oct. 18, 1929. 13 claims. (Cl. 8-2).

1,768,820. Method of bleaching pulp. Linn Bradley and Edward P. McKeefe, assignors to Bradley-McKeefe Corporation, New York, N. Y. Filed Mar. 16, 1922. 38 claims. (Cl. 8-2).

1,768,821. Method of bleaching. Linn Bradley and Edward P. McKeefe, assignors to Bradley-McKeefe Corporation, New York, N. Y. Filed Mar. 14, 1928. 12 claims. (Cl. 8-2).

1,768,822. Method of bleaching. Linn Bradley and Edward P. McKeefe, assignors to Bradley-McKeefe Corporation, New York, N. Y. Filed Mar. 14, 1928. 26 claims. (Cl. 8-2).

1,768,823. Treatment of wood pulp and product. Linn Bradley and Edward P. McKeefe, assignors to Bradley-McKeefe Corporation, New York, N. Y. Filed June 13, 1929. 35 claims. (Cl. 8-2). A method of bleaching.

1,769,189. Method of producing wood pulp. George E. Rice, assignor to Conservative Corporation of America. Filed Jan. 24, 1924. 10 claims. (Cl. 92-13). The wood is boiled in water containing one or more carbohydrates.

1,769,308. White-water sampler for paper making machines. Charles F. Rhodes, assignor to International Paper Company, New York, N. Y. Filed Aug. 10, 1928. 11 claims. (Cl. 92-58).

1,769,355. Drive for paper-making machines. Bernard A. Malkin, Lachine, Quebec, Canada. Filed Aug. 8, 1928. 4 claims. (Cl. 34-48). Drive for drier section.

1,769,461. Mechanism for sampling materials. Charles F. Rhodes, assignor to International Paper Company, New York, N. Y. Filed July 27, 1929. 6 claims. (Cl. 92-38). A dipper and a driving mechanism.

1,769,462. Method of and mechanism for sampling materials. Charles F. Rhodes, assignor to International Paper Company, New York, N. Y. Filed Aug. 2, 1929. 10 claims. (Cl. 92-38).

1,769,513. Process for manufacture of moisture-proof paper. Adelbert M. Hinkson, Niagara Falls, N. Y. Filed July 20, 1928. 5 claims. (Cl. 92-20). Wax paper is mixed with asphalt waste.

1,769,627. Construction material. Albert C. Fischer, assignor to The Philip Carey Manufacturing Company, Chicago, Ill. Filed July 30, 1925. 9 claims. (Cl. 91-68). Sheet material having normally flowable adhesive surfaces coated with a non-adhesive film.

1,769,628. Roofing material. Albert C. Fischer, assignor to The Philip Carey Manufacturing Company, Chicago, Ill. Filed July 30, 1925. 2 claims. (Cl. 108-1).

1,769,629. Constructional material and method of making same. Albert C. Fischer, assignor to The Philip Carey Manufacturing Company, Chicago, Ill. Filed Dec. 21, 1925. 11 claims. (Cl. 94-18).

1,769,630. Constructional material. Albert C. Fischer, assignor to The Philip Carey Manufacturing Company, Chicago, Ill. Filed Apr. 14, 1926. 7 claims. (Cl. 94-18).

1,769,632. Constructional material. Albert C. Fischer, assignor to The Philip Carey Manufacturing Company, Chicago, Ill. Filed Aug. 15, 1927. 3 claims. (Cl. 91-68).

1,769,633. Constructional material. Albert C. Fischer, assignor to The Philip Carey Manufacturing Company, Chicago, Ill. Filed Aug. 15, 1927. 5 claims. (Cl. 91-68).

1,769,634. Constructional material. Albert C. Fischer, assignor to The Philip Carey Manufacturing Company, Chicago, Ill. Filed Aug. 15, 1927. 3 claims. (Cl. 91-70).

1,769,635. Constructional material and method of making same. Albert C. Fischer, assignor to The Philip Carey Manufacturing Company, Chicago, Ill. Filed Aug. 15, 1927. 12 claims. (Cl. 94-18).

1,769,734. Sheet material for soft boxes for toes and method of making same. Wallace C. Bennett, assignor to Bennett Box Co., Boston, Mass. Filed Jan. 7, 1925. 3 claims. (Cl. 154-2). A composite sheet is impregnated with a colloidal suspension of rubber.

1,769,811. Process of pulping fibrous material. Sidney D. Wells, assignor to The Mine and Smelter Supply Company, Denver, Colo. Filed Nov. 7, 1928. 5 claims. (Cl. 92-13). The fibrous material is soaked in a cold caustic alkali solution and treated in a rod mill.

### JULY 8, 1930

1,770,161. Paper slitting and winding machine. George Lamoureux, assignor to Rice, Barton and Fales, Incorporated, Worcester, Mass. Filed Dec. 14, 1925. 7 claims. (Cl. 164-65).

1,770,162. Paper-winding machine. George Lamoureux, assignor to Rice, Barton and Fales, Inc., Worcester, Mass. Filed May 2, 1927. 13 claims. (Cl. 242-66).

### JULY 15, 1930

1,770,409. Method and apparatus for drying pulp. Richard D. Kehoe, New York, N. Y. Filed June 2, 1928. 5 claims. (Cl. 34-12).

1,770,430. Method and apparatus for producing fibrous material. Roland R. Respess, assignor to Respats, Inc., Cranston, R. I. Filed Aug. 7, 1928. 14 claims. (Cl. 92-55).

1,770,505. Machine for cleaning paper rags and the like. August Aeldert, Dusseldorf, Germany. Filed Oct. 5, 1927. 1 claim. (Cl. 19-72).

1,770,507. Synthetic lumber. Albert F. Bemis, assignor to Bemis Industries, Inc., Boston, Mass. Filed Nov. 20, 1926. 7 claims. (Cl. 72-124).

1,770,520. Laminated board. William F. Hayes, assignor to Gagnier Fibre Products Company, Detroit, Mich. Filed June 21, 1926. 4 claims. (Cl. 154-45.9).

1,770,521. Metal-reenforced fiber board. William F. Hayes, assignor to Gagnier Fibre Products Company, Detroit, Mich. Filed Oct. 1, 1928. 7 claims. (Cl. 154-53).

1,770,589. Consistency regulator. Hervey G. Cram, assignor to Great Northern Paper Company, Millinocket, Me. Filed Feb. 16, 1928. 8 claims. (Cl. 92-38).

1,770,697. Stencil sheet. Shinjiro Horii, Tokyo, Japan. Filed Oct. 8, 1927. 3 claims. (Cl. 41-38.6).

1,770,757. Machine for making corrugated board. Edward E. Maston, assignor to Mid-West Box Company, Chicago, Ill. Filed Oct. 22, 1926. 6 claims. (Cl. 154-31).

1,770,814. Pressure roller of machines for manufacturing felted sheets. Ostilio Severini, assignor to Società Invenzioni Brevetti Anonima-Torino, Turin, Italy. Filed Jan. 11, 1929. 3 claims. (Cl. 92-49).

1,770,834. Screen roll. Joseph Leon Bergeron, Quebec, Canada. Filed Dec. 10, 1928. 17 claims. (Cl. 92-48).

### JULY 22, 1930

1,770,972. Paper-bag bottomer. Alfred Clement Coty and Thomas Earl Coty, Watertown, N. Y. Filed May 17, 1928. 8 claims. (Cl. 93-21).

1,771,064. Process for the purification of chemical wood pulp. John D. Rue, assignor to The Champion Fibre Company, Canton, N. C. Filed Aug. 20, 1928. 11 claims. (Cl. 8-2). A process of bleaching in steps.

1,771,138. Paper product and process of making the same. Emil E. Novotny, assignor to John Stogdell Stokes, Huntington Valley Post Office, Pa. Filed July 8, 1927. 8 claims. (Cl. 92-21). Paper containing a resinous material.

1,771,150. Fibrous composition and method for manufacturing same. Earl P. Stevenson and Harry A. Buron, assignors to The Richardson Company, Lockland, Ohio. Filed Nov. 1, 1928. 24 claims. (Cl. 92-21). Pulp containing asphalt.

1,771,165. Art of stencil manufacture. Alex Brooking Davis, assignor to A. B. Dick Company, Chicago, Ill. Filed Aug. 5, 1926. 16 claims. (Cl. 41-38.6). Coating contains aromatic ethers of cellulose.

1,771,259. Paper-corrugating machine. Samuel M. Langston, Wenonah, N. J. Filed May 25, 1928. 10 claims. (Cl. 271-2.3).

1,771,260. Paper-corrugating machine. Samuel M. Langston, Wenonah, N. J. Filed June 18, 1928. 5 claims. (Cl. 271-2.3).

1,771,355. Paper-making machinery. Gilbert J. Scofield, Albany, N. Y. Filed Sept. 7, 1927. 11 claims. (Cl. 92-50).

### JULY 29, 1930

1,771,452. Fourdrinier machine. John Warren Vedder, Frederick W. Lodding and George Lamoureux, assignors to Rice, Barton and Fales, Inc., Worcester, Mass. Filed Feb. 3, 1926. 6 claims. (Cl. 92-45).

1,771,558. Air distributor for paper-making machines. Arthur de Repemtigny, Ottawa, Canada, assignor of one-half to Arthur La Brosse. Filed June 18, 1928. 1 claim. (Cl. 92-74).

1,771,559. Web-forming apparatus. Sverre Diesen, Oslo, Norway. Filed Aug. 10, 1927. 2 claims. (Cl. 92-39).

1,771,563. Duplicating with the aid of stencils. David Gestetner, assignor to D. Gestetner, Limited, London, England. Filed Nov. 29, 1927. 3 claims. (Cl. 41-3.5).

1,771,598. Process for digesting fibrous material. Sidney D. Wells, Quincy, Ill. Filed July 11, 1925. 5 claims. (Cl. 92-7).

1,771,600. Adjustable making board and flow deflector. Arthur T. Yoder, Ontonagon, Mich. Filed June 8, 1928. 8 claims. (Cl. 92-43).

1,771,732. Envelope machinery. Abraham Novick, assignor to F. L. Smithe Machine Co., Inc., New York, N. Y. Filed Sept. 2, 1927. 24 claims. (Cl. 93-61).

1,771,744. Waterproof paper products and the like and process of making the same. Albert L. Clapp, assignor to The Flintkote Company, Boston, Mass. Filed June 9, 1926. Renewed Mar. 24, 1927. 9 claims. (Cl. 92-21).

1,771,745. Water-resistant paper or paper-board product and process of making the same. Albert L. Clapp, assignor to The Flintkote Company, Boston, Mass. Filed June 9, 1926. 13 claims. (Cl. 92-21).

1,771,765. Waterproof paper receptacle. William E. Benson, assignor to Kalix Cup Company, Boston, Mass. Filed Jan. 24, 1925. 5 claims. (Cl. 229-1.5).

1,771,810. Utilization of waste steam from evaporation apparatus in pulp digesting plants. Einar Morterud, Trrderod, near Moss, Norway. Filed Sept. 11, 1928. 1 claim. (Cl. 92-7). Use for preheating pulp in digesters.

1,771,829. Apparatus for the recovery of chemicals and heat from waste liquors. Charles L. Wagner, assignor to C. L. W. Patents Corporation, Boonton, N. J. Filed Jan. 24, 1925. 2 claims. (Cl. 23-277).

1,771,946. Paper insulation for electric cables and the like. Georg apf, Cologne-Mulheim, Germany. Filed Apr. 29, 1926. 1 claim. (Cl. 154-2.6).

1,771,983. Paper article and process of producing the same. Kurt Wandel, assignor to Cellulose Products, Inc., Shamokin, Pa. Filed Jan. 28, 1930. 7 claims. (Cl. 154-2).

AUG. 5, 1930

R17,760. Coated paper. Frederick W. Farrell, assignor to Minnesota Mining and Manufacturing Company, St. Paul, Minn. Filed Jan. 28, 1929. Original No. 1,683,453, dated Sept. 4, 1928. 11 claims. (Cl. 91-68).

1,772,185. Method and means for making crepe paper. Harry Liebeck, assignor to Scott Paper Company. Filed Sept. 27, 1928. 2 claims. (Cl. 92-69).

1,772,216. Method of treating and utilizing the black liquor obtained in the soda-pulp process. Erik Hägglund, Abo, Finland. Filed July 13, 1925. 6 claims. (Cl. 202-5). Process of precipitation and dry distillation.

1,772,251. By-products recovery in the digestion of cellulose materials. Gustaf Hagglund, Stockholm, Sweden. Filed May 3, 1928. 4 claims. (Cl. 92-14).

AUG. 12, 1930

R17,767. Controller. Darcy E. Lewellen and Emmons F. Lewellen, Columbus, Ohio. Filed Apr. 5, 1929. Original No. 1,643,716, dated Sept. 27, 1927. 19 claims. (Cl. 92-46).

1,772,484. Paper-making machine. Ralph A. Hayward, assignor to Kalamazoo Vegetable Parchment Company, Kalamazoo, Mich. Filed Aug. 17, 1928. 4 claims. (Cl. 92-44).

1,772,494. Machine for making plaster board. Gustave A. New, assignor to American Gypsum Company, Port Clinton, Ohio. Filed May 24, 1929. 20 claims. (Cl. 154-1).

1,772,502. Method of making hard-lumber substitute. Orland R. Sweeney, assignor to Iowa State College of Agriculture and Mechanic Arts, Ames, Iowa. Filed Oct. 2, 1928. 5 claims. (Cl. 92-21).

1,772,553. Coating machine and coating process. Jacob A. L. Möller, New York, N. Y. Filed Aug. 8, 1926. 14 claims. (Cl. 91-29).

1,772,686. Wall board. Chester E. Rahr, assignor to The Flintkote Company, Boston, Mass. Filed Mar. 2, 1926. 2 claims. (Cl. 154-45.9).

1,772,785. Art of working cardboard and similar material. Harry Bridgman Smith, assignor to Hoague-Sprague Corporation, Lynn, Mass. Filed Oct. 26, 1925. 65 claims. (Cl. 93-58).

1,772,792. Production of paper pulp. Robert B. Wolf, New York, N. Y. Filed June 26, 1926. 19 claims. (Cl. 92-11). Method of recovering acid in the sulphite process.

1,772,968. Fiber product and method of making same. Daniel Manson Sutherland, Jr., Trenton, N. J. Filed July 30, 1926. 3 claims. (Cl. 154-50).

AUG. 19, 1930

1,773,201. Process for the production of combinations of rubber and paper and products obtained thereby. Reed P. Rose and Harold E. Cude, assignors to General Rubber Company, New York, N. Y. Filed Dec. 18, 1926. 16 claims. (Cl. 92-21).

1,773,270. Fourdrinier paper machine. Herbert L. Kutter, assignor to Beloit Iron Works, Beloit, Wis. Filed Feb. 23, 1928. 3 claims. (Cl. 92-44).

1,773,320. Process of refining alkaline pulps. George A. Richter, assignor to Brown Company, Berlin, N. H. Filed Nov. 25, 1925. 12 claims. (Cl. 8-2).

1,773,419. Sulphite wood pulp and method of making the same. Webster E. Byron Baker, Brooklyn, N. Y. Filed June 3, 1926. 11 claims. (Cl. 92-11).

1,773,435. Apparatus for coloring paper stock. Michael W. Ranke, Hudson Falls, N. Y. Filed Jan. 28, 1929. 2 claims. (Cl. 92-21).

AUG. 26, 1930

1,773,832. Automatic paper-making process and apparatus. Melvin R. Ware, Plainfield, N. J. Filed July 30, 1928. Renewed May 1, 1930. 8 claims. (Cl. 92-46).

1,773,956. Process of making sanitary napkins. Frank G. Crane, assignor to Louis E. Einsheiner, Cleveland, Ohio. Filed Feb. 13, 1929. 2 claims. (Cl. 154-2).

1,774,195. Tub beater. Roy H. Breyfogie, White Pigeon, Mich. Filed Feb. 3, 1927. 3 claims. (Cl. 92-23).

1,774,204. Fibrous covering and method of making same. Harold L. Levin, assignor to The Flintkote Company, Boston, Mass. Filed Jan. 17, 1927. 9 claims. (Cl. 91-66.9).

1,774,309. Method and apparatus for shredding and drying pulp. Ossian Anderson, assignor to Puget Sound Pulp and Timber Co., Everett, Wash. Filed Mar. 16, 1929. 14 claims. (Cl. 34-24).

1,774,363. Stock conduit. Harry Fletcher, Alpena, Mich. Filed Sept. 4, 1928. 5 claims. (Cl. 92-44).

1,774,398. Paper-coating mechanism and process of coating paper. Luther A. Parker, assignor to The Champion Coated Paper Company, Hamilton, Ohio. Filed Jan. 2, 1926. 6 claims. (Cl. 91-68).

1,774,403. Process of producing fiber of high alpha cellulose content. George A. Richter, assignor to Brown Company, Berlin, N. H. Filed Sept. 16, 1926. 11 claims. (Cl. 92-13).

1,774,497. Paper article and process of manufacture. Kurt Wandel, assignor to Cellulose Products, Inc., Shamokin, Pa. Filed June 27, 1930. 6 claims. (Cl. 154-2).

SEPTEMBER 2, 1930

1,774,536. Process and arrangement for manufacturing open-end and open-side envelopes from paper or similar material. Alfred Winkler and Max Dunnebier, Neuwied-on-the-Rhine, Germany. Filed Nov. 6, 1926. 37 claims. (Cl. 93-61).

1,774,553. Paper-making machine. Alfred F. Helin, assignor to The Bagley and Sewall Company, Watertown, N. Y. Filed Mar. 8, 1929. 14 claims. (Cl. 92-44). Suction devices.

1,774,556. Jordan engine. Edward A. Jones, assignor to E. D. Jones and Sons Co., Pittsfield, Mass. Filed Nov. 22, 1927. 13 claims. (Cl. 92-27).

1,774,566. Process and apparatus for regulating paper stock and the like. Charles V. Proctor, Biron, Wis. Filed Jan. 11, 1929. 12 claims. (Cl. 92-46).

1,774,573. Process of making creped-paper-lined insulating material. Allen L. Spafford, assignor to Wood Conversion Company, Cloquet, Minn. Filed May 9, 1929. 3 claims. (Cl. 152-28).

1,774,609. Method of preparing dispersions. Elman B. Myers, Norristown, Pa., assignor of ten per cent to Howard W. Dix, New York, N. Y. Filed Sept. 6, 1928. 5 claims. (Cl. 252-6). Use of sulphite waste liquor.

1,774,813. Plastic-board manufacture. Harry C. Haynes, assignor to Bemis Industries, Incorporated, Boston, Mass. Filed Nov. 1, 1926. 13 claims. (Cl. 154-2).

1,774,830. Slowness tester for paper pulp. Arthur B. Green, Portland, Oreg. Filed Apr. 15, 1929. 11 claims. (Cl. 265-11).

1,774,844. Suction-box head for paper-making machines. John Reagan and Arthur Bernard, Livermore Falls, Me. Filed Sept. 24, 1929. 6 claims. (Cl. 92-51).

1,774,988. Machine for making prepared roofing. Robert MacLean, assignor to Amalgamated Roofing Company, Chicago, Ill. Filed May 1, 1926. 11 claims. (Cl. 91-43).

SEPTEMBER 9, 1930

1,775,392. Roller covered with rubber or other resilient material. Christian Hamilton Gray, London, England. Filed Oct. 24, 1927. 2 claims. (Cl. 92-49).

1,775,405. Art of paper making. John Naumann, Chicago, Ill. Filed Nov. 2, 1927. Renewed Feb. 8, 1930. 7 claims. (Cl. 92-13). Silicate of soda and caustic potash are used.

SEPTEMBER 16, 1930

1,775,631. Abrasive article and method of making the same. Richard Paul Carlton, assignor to Minnesota Mining and Manufacturing Company, St. Paul, Minn. Filed Mar. 13, 1926. 10 claims. (Cl. 51-280).

1,775,743. Fiber-stock-refining apparatus. John A. Wiener, Laurel, Miss. Filed May 14, 1928. 2 claims. (Cl. 92-27).

1,775,793. Machine for making paper bags. Samuel Wechsler, Cleveland, Ohio. Filed Nov. 25, 1927. 17 claims. (Cl. 112-10).

1,775,829. Bag-making machine. Adolph Potdevin, assignor to Potdevin Machine Company, Brooklyn, N. Y. Filed Nov. 2, 1928. 10 claims. (Cl. 93-8).

1,775,901. Apparatus for producing two-toned glazed paper. Edward W. Hague, Scranton, Pa. Filed Mar. 26, 1928. 1 claim. (Cl. 91-16).

1,775,905. Stock inlet for paper machines. Richard T. Lang, assignor to American Voith Contact Co., Inc., New York, N. Y. Filed Mar. 20, 1928. 3 claims. (Cl. 92-44).

1,775,950. Heat-processing machine for sheets and boards. John A. Stevens, assignor to The Upson Company, Lockport, N. Y. Filed Aug. 14, 1928. 12 claims. (Cl. 154-1).

1,776,002. Process of producing a substance for obtaining a high gloss and pure white color on paper and the like. Heinrich Körber, Inzersdorf, near Vienna, Austria. Filed Mar. 21, 1928. 4 claims. (Cl. 92-21).

SEPTEMBER 23, 1930

1,776,256. Severing mechanism for board-making machines. Francis W. Harney, assignor to The Upson Company, Lockport, N. Y. Filed May 8, 1928. 1 claim. (Cl. 164-68).

1,776,306. Device for recording and indicating beater settings. George S. Witham, Sr., Hudson Falls, N. Y. Filed May 31, 1927. 4 claims. (Cl. 92-24).

1,776,368. Stencil sheet. Ernest E. Novotny, Philadelphia, Pa. Filed July 11, 1928. 5 claims. (Cl. 41-38.6).

1,776,586. Method of saturating sheet material. George P. Heppes, assignor to The Patent and Licensing Corporation, Boston, Mass. Filed Feb. 3, 1927. 9 claims. (Cl. 91-70).

1,776,590. Method of saturating sheet material. Lester Kirschbraun, assignor to The Patent and Licensing Corporation, Boston, Mass. Filed Sept. 16, 1926. 7 claims. (Cl. 91-70).

1,776,643. Log barker. Carl Busch Thorne, Hawkesbury, Ontario, Canada. Filed Oct. 22, 1928. 7 claims. (Cl. 144-208).

1,776,748. Process of fabricating unwoven sheet material and article therefor. Godfrey Bloch, New York, N. Y. Filed Apr. 25, 1928. 22 claims. (Cl. 92-40).

1,776,761. Method for blowing out pulp digesters. Einar Morterud, Torderod, near Moss, Norway. Filed Oct. 16, 1928. 5 claims. (Cl. 92-7).

SEPTEMBER 30, 1930

1,776,790. Resin-coated pulp board. Harold C. Harvey and Hubert L. Becher, assignors to The Agasote Millboard Company, Ewing Township, N. J. Filed Aug. 4, 1928. 1 claim. (Cl. 154-45.9).

1,776,885. Process of making impregnated sheets. Harold C. Cheetham, assignor to Bakelite Corporation. Filed Nov. 16, 1926. 4 claims. (Cl. 154-40).

1,776,886. Variable-speed drive for papermaking machines and the like. Frank Oscar Levi Chorlton, Bury, England. Filed Jan. 22, 1929. 1 claim. (Cl. 74-34).

1,777,217. Pulp digester. Einar Morterud, Torderod, near Moss, Norway. Filed Oct. 10, 1929. 7 claims. (Cl. 92-7).

## U. S. Corrugated Fiber Box Co. Builds

[FROM OUR REGULAR CORRESPONDENT]

INDIANAPOLIS, Ind., October 13, 1930.—Confidence of one local firm in the business outlook of the country is manifest in expansion of the United States Corrugated Fiber Box Company here during the present year. Following a $350,000 fire that destroyed their storage warehouse and offices in May, 1929, the organization recently completed a new warehouse, a manufacturing and shipping buuilding and a new office building at the plant location, 1409 Roosevelt avenue. Plans have been completed also for a new plant in Knox, Pa., and construuction will begin at once.

The new warehuose has 50,000 square feet of floor space and the two-story manufacturing and shipping building has 125,000 square feet. The new office building and the old plant make a combined area of more than 500,000 square feet.

Taking a lesson from the disastrous fire, the company has installed the latest built-in fireproof vaults for safe-keeping of all records and files and steel safes inside the vaults give double protection.

In an era when general business depression was felt in the city there have been no lay-offs among the force of nearly 200 employees of the local plant, according to H. J. Lacy, manager of the company. The company also operates plants in Wheeling, W. Va., and Dayton, Ohio. The new Knox plant will adjoin a plant of the Knox Glass Bottle Company and will supply several branches of that firm with containers.

# Paper Machine Equipment and Operation*

By L. M. Yoerg[1] and R. W. Pattison[2]

Let us assume that the machine starts with the machine stuff chest. Wooden chests are a thing of the past, for they are being replaced rapidly by concrete or tile lined chests with agitators which insure rapid mixing of color added to compensate when the shade is off. Wooden chests are a source of slime and dirt with their many cracks and crevices. A stuff chest should be capable of defibering the wet broke fed into it. Extreme high speed agitators should be avoided as they have a tendency to slow up the stock and to create foam. Copper is sometimes used to line the chests but I do not favor it for the reason that in the case of some papers it will take on a film which may break off at the wrong time and cause spots in the paper.

After the machine stuff chest comes the stuff pump. We, of course, like the slow speed plunger pump which does not produce flat ball seats which make small hard lumps. These have ruined many tons of paper. Brass chambers, of course, are preferable. Rubber seats with brass balls make a very satisfactory combination.

I understand that some mills are using rotary pumps in place of the plunger type, and it would seem to me that in using a rotary pump for the finer grades of paper there would be a tendency to slow up the stock in the same manner as a high speed agitator, in addition to causing foam. I would like to bring up this question for discussion if any of the members present have had experience with the rotary type pump.

Next we will take up the "stuff box" or "regulating box," that very simple contrivance which is, however, one of the most important pieces of equipment on the paper machine. All I will say about it is that it should be constructed with a rounded bottom to prevent lodgment of stock and that the orifice should be so formed as to permit a steady, easy flow of stock to the fan pump or mixing box.

There are automatic consistency regulators on the market but as we have had very little experience with them, I suggest that this subject be discussed.

It is needless to say that the mixing box should be so equipped that either return water or fresh water can be used. This is necessary in the case of colors, particularly, as a quick shift can be made from low to high color by changing from fresh water to the return water.

### Rifflers and Screens

Next we come to the choice of rifflers or the new centrifuge machine for removing foreign particles heavier than fiber. As there appears to be considerable difference of opinion concerning the results obtained on these devices I hesitate to give an opinion. I have seen clean paper put over the rifflers and over the new centrifuge machine. However, I would like to hear from some of the men present what their experience has been as regards foam and the throwing out of clay and pigment colors with the use of the new centrifuge machine. Some mills still use magnets. Personally, I do not like them as it is possible that while they are loaded with metal the current could be broken necessitating the shutting down of the machine to wash up.

Next we come to the screens, another very debatable subject. I decline to commit myself as to whether better work is done on rotary screens—the oscillating type, or on the inclined flat screens. I feel that the grade of paper being made should govern the type of screen used. In the case of a rag furnish, containing rubber and other foreign material, it is very helpful to be able to regulate the flow on an inclined screen so as not to take too much of this material into the paper. Then again I have seen some very fine rag papers made on the rotary screen with an auxiliary flat screen to take care of any floating foreign material. It is also a very good check for the superintendent to look over these flat screens and see what sort of foreign material is coming through with the various furnishes.

Next we will take up the head box. There are numerous types of head boxes in use. Why there are so many different types is hard to explain when all that is wanted is one that will supply stuff and water of uniform consistency over the entire width of the machine. A standard type for all fourdrinier machine could be developed. Incidentally that is one of the objectives of the Paper Manufacture Committee.

### The Fourdrinier Part

If I should wish to start a real argument I feel it would only be necessary for me to give a definite opinion as to the type of apron to use, how it should be placed on the tube rolls, and its relative position to the slices. Far be it from me to do such a thing, as I might cause a riot. Undoubtedly some of you have little use for the old type apron and will use only the new patented stock inlet. Perhaps someone here who prefers the stock inlet will tell us what his experience has been with it.

Another topic which might be of interest at this point is the pitch of the wire. We know most of the fourdriniers in use today are so built that it is possible to change the pitch only by shutting down the machine and taking considerable time to raise or lower the breast roll. The more modern machines are equipped with a raising and lowering device so that the pitch of wire can be changed to suit the particular grade being made.

We hear so much about the various types of suction box that again I hesitate to say which I consider the most satisfactory. We know that there is on the market a suction box with rollers, which has been tried out with very satisfactory results. We also know that wooden covers properly planed are not as hard on wires as brass plates. Then again we know that the suction couch is very desirable on certain grades and objectionable on others. This is a good point to bring up for discussion if the time permits.

Wire guides are not to be overlooked. The position of the wire guide is important in its relation to the efficiency of the guide. On many machines it is located between the last suction box and the lower couch or suction roll, but it also works very well after the bottom couch or suction roll.

### Felts and Presses

Considerable work can, I think, be done by this committee on the proper care and operation of wet felts. If there is one piece of paper machine equipment that is abused, it is the wet felt. Forms of abuse are improper crown of press rolls, press rolls that are too hard or too soft and the old fashioned method of roping which is not only hard on the felt but affects the crown of the roll. Then too, if the felt rolls are too heavy they will not move freely.

There are five factors which influence water removal from a sheet of paper at the presses. (1) The pressure applied; (2) Hardness of rolls, both top and bottom; (3) The diameter of the rolls; (4) The speed of the sheet and felt; (5) The resistance of the felt to the flow of water. To elaborate on the above factors would take some time. However, the Paper Manufacture Committee intends to investigate these factors very thoroughly.
to the extent of their drying capacity.

* Presented at the fall meeting of TAPPI, Erie, Pa., September 3-5, 1930.

[1] Member TAPPI, general superintendent, American Writing Paper Co., Holyoke, Mass.

[2] Junior member TAPPI, asst. to superintendent, American Writing Paper Co., Holyoke, Mass.

Strange as it may seem, most machines are limited in production.

Various theories exist as to the proper sequence of drier temperatures. Some favor the hottest driers on the wet end, some in the center of the drier bank, and some at the dry end. It has been our experience that the coolest driers at the wet end, gradually increasing in temperature to the dry end, work very well. This is necessary to properly fuse or sinter the aluminum resinate, resulting in a better sized sheet. When the temperature becomes higher than is really necessary a pulverizing action of the rosin takes place, resulting in inferior engine sizing and destruction of the fiber.

We now come to the subject of size press and again the importance of crown and hardness of rolls must be considered as rolls too soft will raise fuzz, or if they are badly pitted, there will be an uneven spreading of the sizing solution, giving the sheet a mottled appearance.

An apparatus for temperature control is considered quite essential.

The size tub practice differs dependent entirely upon the quality of the paper. When the paper is loft or pole dried it passes from the size tub to cutter and lay-boy, where a fly knife cuts it into the required length and it is piled in a wet condition. The paper is then taken to the loft where it is dried.

There are air driers which take the paper in a continuous web and dry it. This is accomplished by means of poles which pick up the web and carry it through a chamber where hot air is blown on it and the moist air removed.

It might be well at this point to discuss the most satisfactory way to cool the chilled steel rolls in the calendar stock. I do not believe that sufficient attention is given to the bearings being water cooled and to the source of cold air used to contract certain parts of the roll.

The most satisfactory practice, I believe, is to have a slight crown on the top roll and considerbly more crown on the bottom roll. Then again I have seen very satisfactory work with crown on the roll in the center of the stack.

It seems rather unnecessary to take up at this time the matter of reels and rewinders. Good work has been done on both the shaft and drum types and it is probably a matter of opinion as to which type is the better.

We hear today considerable discussion of the use of the vacuum drier on news print and the finer papers following the size tub only. However, it cannot be used to dry high grade paper, or paper which has to be sized with rosin after the presses. This is easily understood because the surface temperature of the drying cylinders is not hot enough to sinter the rosin. However, by adding a few hot driers after vacuum drier, the desired results may be obtained. Great economies in steam consumption are realized through its use, and its fundamentals are sound.

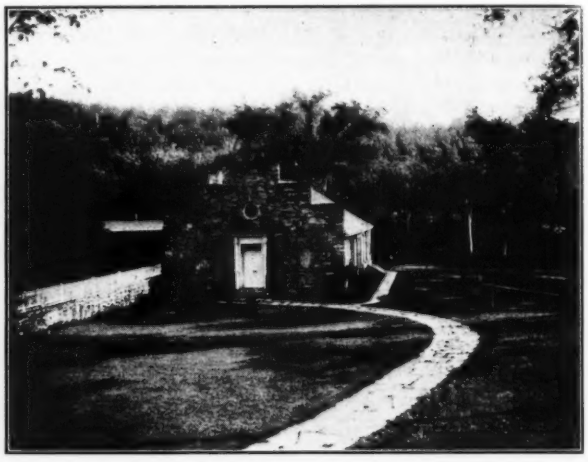
This paper is more or less elementary. Each committee member, however, has been given certain units to study and report on. I, therefore, feel that the next report submitted by this committee will contain more detailed information than could possibly be covered in a preliminary article.

## Night School for Paper Mill Workers

FORT EDWARD, N. Y., October 18, 1930.—The local Board of Education has plans under way for establishment of a night school for paper mill employees following a request from the International Paper Company which plans to co-operate in every way. A number of courses which will prove of benefit to the employees in their work are to be offered and the office of R. J. Buckley, plant superintendent, has received many applicants. However, the school will also be open to all citizens of the village willing to take advantage of it. Among the courses to be studied are elements of chemistry and pulp wood, blue print reading, mechanics and hydraulics and elements of electricity.

## Crane Family in the Paper Industry

Invitations have been issued by Crane & Co., Inc., and Z. & W. M. Crane, Inc., for the formal opening at Dalton, Mass., during the week of October 27 of the Crane Museum, established to record the activities of the Crane family in the papermaking industry.



CRANE PAPER MUSEUM

The only remaining part of the "old stone mill," built in 1844, has been restored to house the museum, which contains among other historical exhibits a small-scale model of the original Crane mill erected in 1801.

## News Print Production for September

Production of news print during September 1930 amounted to 195,490 tons and shipments to 193,835, according the News Print Service Bureau. Production in the United States was 95,261 tons and shipments 96,048 tons making a total United States and Canadian news print production of 290,751 tons and shipments of 289,883 tons. During September 23,767 tons of news print were made in Newfoundland and 1,000 tons in Mexico, so that the total North American production for the month amounted to 315,518 tons.

The Canadian mills produced 96,321 tons less in the first nine months of 1930 than in the first nine months of 1929, which was a decrease of 5 per cent. The United States output was 53,663 tons or 5 per cent less than for the first nine months of 1929. Production in Newfoundland was 25,623 tons or 14 per cent more in the first nine months of 1930 than in 1929 and in Mexico 3,357 tons less making a total decrease of 127,718 tons or 4 per cent.

During September the Canadian mills operated at 66.8 per cent of rated capacity, United States mills at 70.2 per cent and Newfoundland mills at 103.2 per cent. Stock of news print at Canadian mills totalled 62,495 tons at the end of September and at United States mills 30,879 tons, making a combined total of 93,374 tons which was equivalent to 5.5 days' average production.

## Austria Flooded with Pulpwood

WASHINGTON, D. C., October 15, 1930.—A situation is rapidly developing in the Central European wood and pulp markets which threatens to have disastrous effects on the Austrian lumber and pulpwood industries, according to a report from Assistant Commercial Attache De Forest Spencer at Vienna.

The evident determination of the Soviet government to flood Europe with wood and wood products is being carried out successfully with the result that on the stock markets of Vienna, Budapest and Geneva, as well as Zurich, the shares of wood industrials have lost heavily in recent months in value.

It is reported that the Soviet is anxious to supply Italy with both lumber and pulp and to this end expects to ship no less than 1,000,000 cubic meters of wood to the Italian market.

# Paper Break Indicator and Recorder

Various methods have been used in the past to indicate breaks in paper during manufacture. These mechanical devices have usually operated by objects dragging on the sheet and closing contacts by gravity when a break occurred in the paper. Their great disadvantage was that they had a tendency to mark the wet and impressionable sheet. They were especially harmful to high-grade and heavily loaded papers.

### Indicates Instantly When There Is Trouble

The light relay paper break recorder has no direct contact with the paper itself, but indicates instantly when there is trouble, records the exact time it occurs, keeps a record of the number of breaks, and how long the machine is inoperative in each case. Its advantages are at once obvious.

### What the Apparatus Includes

The apparatus includes a light relay, a light source, and a type U graphic meter, whose chart may be renewed daily. With these can be used a gong, red light, or other device to call an operator's attention.

The light relay (Fig. 1) consists of a photo-electric cell, grid glow tube, relay, transformer, and necessary auxiliary equipment, all mounted in a metal box, about 8 x 8 x 10 inches. A glass window in the case permits rays from the light to strike the cell.

### In Ordinary Operation

In ordinary operation the light relay is mounted above the moving sheet of paper, which shuts off the light from the source beneath, a 100 or 200-watt lamp, depending on distance. Both relay and incandescent lamp are preferably operated from the supply source, 110-volt alternating current.

The instant there is a break in the paper, the light rays passing through the glass window, affect the cell, cause the grid glow tube to pass current and operate the relay. A gong is sounded, and the graphic meter, placed anywhere convenient, records the event.

### Has Long Life

The photo-electric cell has a long life, usually a year or more, and can be replaced without disturbance. The grid glow tube has about 5,000 hours operating service. The relay is of the

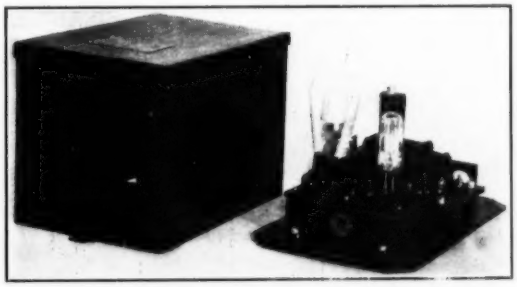


FIG. 1

A light Relay consisting of a photo electric cell, grid glow tube, relay, transformer and other necessary equipment for mounting in the metal box of the paper break recorder.

telephone type. All operation is automatic and resisting of any kind is unnecessary.

The paper break indicator is most often located between the press and drier sections, although if a more complete record of performance is desired any number of indicators may be installed throughout the machine between adjacent sections. It is especially desirable, for example, to have one between the calender and the reel in order to provide a definite check on the exact time paper is being put in the reel.

### Some Possible Applications

Some possibilities of this application may be listed:

1. Since operators are warned immediately, time is saved.

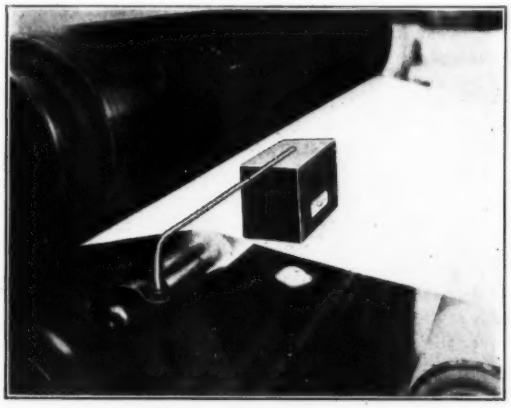


FIG. 2

Paper break recorder consisting of light relay in place ready to record instantly any break in the paper web and stop the press.

2. By means of the record chart a study can be made of the best way of avoiding breaks.
3. The chart also offers a means of analysing production.
4. Several indicators on one machine will record the whole story of a machine's productive running.

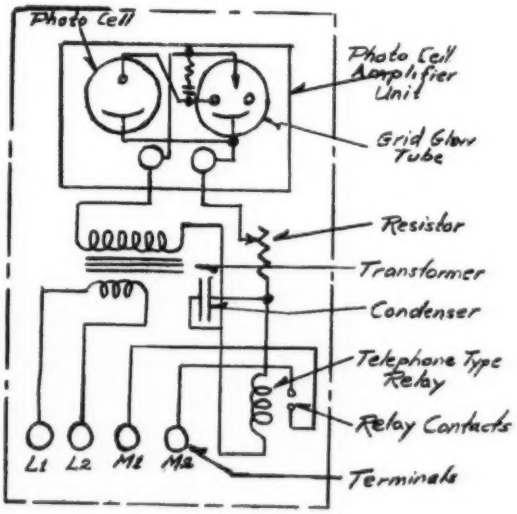



FIG. 3

Wiring connections of light relay

5. The exact location of each break and the time it occurred is preserved on a permanent record.
6. The indicator requires practically no maintenance or attention over long periods.

Additional information regarding this device may be obtained from the Westinghouse Electric and Manufacturing Company, East Pittsburgh, Pa.

# Current Paper Trade Literature

## Abstracts of Articles and Notes of Papermaking Inventions Compiled by the Committee on Abstracts and Bibliography of the Technical Association of the Pulp and Paper Industry

Clarence J. West, Chairman

**For photostatic copies of articles appearing in the Abstract Section Address the Chairman of the Abstracts Committee, Dr. Clarence J. West, National Research Council, 21st and B Streets, Washington, D. C. The charge for this service is 25 cents per page. Copies of United States patents may be obtained from the U. S. Patent Office, Washington, D. C., for 10 cents each. Send currency not stamps.**

### Mechanical Process

**Pocket-Grinder Loader.** P. P. Westbye. U. S. Pat. 1,733,038, Oct. 22, 1929.—The invention consists in providing a loading chamber or pocket of the same size as the pocket of the grinder. This is fed by a chute from a suitable log conveyor. It is supported on a carrier mounted on an extension of the main shaft of the grinder. The carrier travels on rollers running on circumferential tracks, and is rotated by means of mechanism operating pinions on racks at the side of the tracks. When the loading chamber has been filled it is raised on the carrier, and there is a tripping mechanism that can be set to stop the carrier at any particular pocket and lock it in position to unload. The loading pocket has an open end adjacent to the grinder, so that the load may be driven into the pocket by a ram, which is preferably mounted on the loading chamber. After the load has been transferred, the closing of the door of the grinder pocket unlocks the carrier, which is then returned to its loading position. The cover of the loader pocket is automatically opened when it reaches this position. In order to prevent too rapid descent of the carrier, spring shoe brakes are provided near the ends of the tracks. A counter weight is also provided to balance the weight of the carrier and loader pocket.—A.P.-C.

**Burr for Dressing Pulp Grindstones.** Frank W. Aiken. U. S. pat. 1,737,551, Dec. 3, 1929.—The burr comprises two sections combined for being rotated and traversed across the face of the stone simultaneously. The teeth of one section has edges for scoring the stone and the teeth of the other section are for dressing the stone.—A.P.-C.

**Mechanical Pulp of Yesterday and Today.** Hugh E. Anderson. World's Paper Trade Rev. 92, 1710-1716 (Nov. 8), 2134-2140 (Dec. 13, 1929).—A general discussion of the factors affecting the quality of ground wood and its behavior on the paper machine.—A.P.-C.

**Pocket Grinder.** Fred B. Chappel. U. S. pat. 1,742,233, Jan. 7, 1930.—The side edges of the pockets are rabbeted. There is a rectangular frame having rabbeted side bars interlocked with the rabbeted edges of the pockets, and the pockets are provided with shoulders for engaging the cross bars of the frame.—A.P.-C.

**Process of Making Groundwood.** William Brydges and Spottswood C. Foster, assignors to Bedford Pulp and Paper Co. U. S. pat. 1,737,542, Nov. 26, 1929.—Blocks or bolts of wood are treated with an alkaline solution such as sodium carbonate or lime and cooked to remove oils and acids, and the wood is washed with warm water to remove extraneous matter and facilitate mechanical separation of the fibers preparatory to grinding.—A.P.-C.

**Grinding Wheel for Pulp Grinders.** Edward Anderson assignor to Simonds Worden White Co. U. S. pat. 1,727,389, Sept. 10, 1929.—The wheel consists of a shaft on which is mounted a series of metal spiders or disks, which are splined on the shaft, but can move longitudinally thereon. A number of segmental blocks or abrasive material, forming rings, are mounted on these disks, the inner edges of the segments being confined between the disks and secured there by pressing the end disks toward each other. Other rings, also composed of segments, are placed between and interlocked with the first mentioned rings. The portions of the abrasive segmental blocks confined between the metal disks are dove-tail shaped in cross section, and the portions of the disks which confine the dove-tails have a shape complementary thereto. The portions of the abrasive blocks outside the metal disks are wedge-shaped in cross section, the thicker portion being at the outer part of the ring. The spaces between these rings are filled by similar abrasive segmental blocks, which complementary cross section to those of the first series of rings, so that the blocks are all effectively interlocked. The longitudinal joints between segments of adjacent rings are preferably offset. A suitable cement, such as melted sulphur, may be poured into the joints.—A.P.-C.

**Artificial Pulpstones A Permanent Factor in Pulp Production.** P. F. Luckham. Pulp Paper Mag. Can. 29, 39-42 (Jan. 9, 1930).—An outline of the development of the Norton pulpstone, with a description of its construction and enumeration of its advantages.—A.P.-C.

**Report of the Committee on Mechanical Pulp of the Technical Section of the Canadian Pulp and Paper Association.** D. L. McLeod (Chairman), Price Bros. & Co. Pulp Paper Mag. Can. 29, 177-178 (Feb. 6, 1930).—Suggestions are made as to the lines of groundwood investigation which would be of greatest value to the industry, it being recommended that the work be done following the same general scheme as Thickens. Various points in connection with the study of the effects of speed, temperature, pressure, power input, grinding area and wood quality are briefly discussed.—A.P.-C.

**Machine for Working on Bast Plants.** D. R. P. 481, 942 Kl. 29a Gr. 2, March 13, 1926. Vera A. Melnikow, geb. Kosloff in Leningrad.—The invention consists of a machine for working on bast plants which performs all necessary work in one step without interrupted manual labor, and in such a manner that the plants are led parallel to their direction of motion so that no tearing takes place and, after changing the direction of motion to a direction perpendicular to the fiber it is led to a vibratory device whereby the forward motion is adapted to the length of the stalk of the plant through intermittent control.—J.F.O.

**Machine for the Separation of the Fibers from Bast Plants and Other Adhering Fibers.** Austrian patent 114,238 R. L. Pritchard in London.—Before the rolls is an arrangement for the separation of the seed and after the roll is an appliance for the separation of the woody components from the separated fibers.—J.F.O.

**Device for the Automatic Regulation of Wood Grinders With Several Presses.** D. R. P. 483,258 Kl. 55a Gr. 1 November 19, 1926. Amme-Luther Werke, Braunschweig der Miag Muhlenbau und Industrie A.-G. in Braunscweig.—By hydraulic, mechanical or other means, single presses are automatically connected or disconnected when the grinding pressure goes under or over the desired pressure.—J.F.O.

**Process Conformable to the Action Upon the Velocity of Rotation of the Stone of Pulp Grinders With Decreasing Stone Diameters.** Czechoslavakian patent 28,766 Fa. J. M. Voith in St. Poelten.—The revolutions per minute of the pulp stone is so changed that its peripheral velocity remains continuous or nearly so.—J.F.O.

**Process for Regulating the Load on Continuous Wood Grinders.** D. R. P. 483,993 January 31, 1927. A. G. Brown Boveri & Cie., Baden, Switzerland.—The spindle of a regulating valve is fastened to the side of the magazine which is supposed to be capable of moving a short distance, when the load on the stone

increases or decreases and it is this movement which is taken up by the spindle. On the opposite side of the magazine is a spring which holds the magazine in the desired position.—J.F.O.

**Process in the Hot Grinding of Pulp.** Swedish patent 67,971 August 1, 1928. G. F. Magnuson in Skonvik, Sweden.—The temperature of the stone is maintained constant during the shut-down period by supplying warm air from an outside source.—J.F.O.

### Alkaline Processes

**Manufacture of Kraft Pulp.** A. Gustin. Falls Mfg. Co. Paper Mill 52, No. 45, 8, 44 (Nov. 9, 1929).—After a very brief description of some of the early (1907-1908) work done on the manufacture of kraft pulp in the United States, the type of equipment in use in kraft mills at the present time is outlined and briefly discussed.—A.P.-C.

**Blow Line Diameters.** Albert B. Gregg. Paper Industry 11, 1934-1935 (Feb., 1930).—The drawbacks of small and poorly designed blow lines in soda and sulphate mills are pointed out.—A.P.-C.

**Preparation of Caustic Cooking Liquor.** W. D. Mount. U. S. pat. 1,725,818, Aug. 27, 1929.—This patent covers the Mount continuous causticizing system. Black ash (which has not been finely ground so as to avoid formation of fine particles of carbon) is leached and lime is slaked simultaneously with the same liquid, the mixture is continuously causticized with agitation of sufficient violence to cause the carbon particles to be exposed to contact with particles of carbonate of lime and to become substantially completely decantable along with the calcium carbonate. The settling of the sludge, decantation of the clear caustic liquor and removal of the sludge are also carried on as a continuous process.—A.P.-C.

**Process for the Mfg. of Textile Materials from Plants With Alkaline Liquors.** Austrian patent 114,431, April 15, 1929. M. Melliand.—The raw materials are treated in a desired sequence but at times only with shorter time intervals with very high concentrated alkali and at least once with hot and once with cold liquor.—J.F.O.

**Process for the Cooking of Cellulose.** Norwegian patent 45,641, Aug. 11, 1927. E. Morterud in Moss, Norway.—After the filling of the cooking charge in the digester, the charge is allowed to soak by means of warm or overheated liquid, preferably water or used cooking liquor. After drainage of the soaking liquor, the addition of cooking liquor follows, before or during which, the pressure of the digester is started up.—J.F.O.

**Process for the Mfg. of Cellulose By Cooking the Wood, Etc. With Silicate Liquor.** Austrian patent 114,448. H. Wollin in Djursholm, Sweden.—The liquor is given such a high silicic acid content that, for example, the alkali present, not as sulphide, will go over to sodium silicate; so that the liquor after regeneration by evaporation and melting or dry distillation is caustic enough to be reused without recausticizing with calcium oxide.—J.F.O.

**Stack Losses in Sulphate Mills.** George H. Horne. Western Precipitation Co., Los Angeles, Cal. Paper Trade J. 89, No. 22, 65-66 (Nov. 28, 1929).—Determination of stack losses are made by measuring the velocity of the gases in the flue leading to the stack, the dimensions of the stack and the concentration of soda per cubic foot. The rate of flow is best determined by a few pitot tube traverses of the flue section to determine the average velocity of the gas; if it is impossible to make pitot tube measurements, an approximation of the gas volume can be made from the rate of combustion of carbon and the carbon dioxide and water vapor contents of the flue gas, correcting, if possible, the stack loss figures for washing losses. The determination of the concentration of solids carried by the gas consists in drawing a metered volume of gas from the flue, passing it through a suitable filter and weighing the solids caught on the filter. Alternative procedures are described in detail for carrying out this determination, using either wet or dry filtration. The results obtained are probably accurate to within 5 per cent. While the method is not claimed as the standard method, it comes nearer to it than any other.—A.P.-C.

**Treatment of Spent Wood-Cooking Liquor.** Linn Bradley and Edward P. McKeefe, assignors to Bradley-McKeefe Corp. U. S. pat. 1,743,080, Jan. 7, 1930.—Residual liquor from the cooking of wood with a liquor containing caustic soda and a sodium-sulphur compound, such as sodium sulphide or sulphite, is dried and heated with calcium carbonate under chemical reducing conditions at a temperature sufficient to convert calcium carbonate into calcium oxide; the resulting product is mixed with water and agitated at an elevated temperature to produce a solution containing caustic soda and sodium-sulphur compounds suitable for further use.—A.P.-C.

**Treatment of Black Liquor.** Papeteries Navarre. Fr. pat. 664,308, Feb. 27, 1928.—Silica is eliminated from black liquor by the action of carbon dioxide or of sodium bicarbonate, or both, at 15 deg. C., so that the sodium silicate is decomposed.—A.P.-C.

**Treatment of Waste Liquors from the Making of Paper Pulp and Similar Liquors to Generate Heat and Recover Chemicals Therefrom.** C. L. Wagner, Eng. pat. 321,413, Aug. 7, 1928.—The waste liquor is sprayed downward through a refractory-lined vertical retort where it meets an upward current of heated air, which effects combustion of the volatile constituent of the liquor and allows the carbonaceous residue to fall through the bottom of the retort into a second chamber, where the combustion process is completed by the introduction of further quantities of air. The alkali salts in the residue are recovered in the usual way. When once started, e. g., by first burning oil until the retort is sufficiently hot, the process is self-supporting and continuous, and provides sufficient heat to supply the whole of the requirements other than mechanical power, of a well-equipped soda pulp mill. The process can be applied to the waste liquor from the soda, sulphate or monosulphite processes.—A.P.-C.

**Improvement in the Recovery of Black Liquor.** Vickers Co. Fr. pat. 664,405.—In order to recover valuable by-products, after evaporation the residue is subjected to dry distillation, after which the usual method is used for regeneration of the caustic liquor. Instead of subjecting the residue from the dry distillation to the usual smelting operation, it may be leached directly with water to dissolve the sodium carbonate, which is then causticized with lime, and the carbon is removed with the precipitated calcium carbonate. The carbon thus obtained is in an extremely active state, and may be purified by dissolving out the calcium carbonate with hydrochloric acid.—A.P.-C.

**Recovery of Sodium Carbonate from Pulp Waste Liquors.** Francis G. Rawling. U. S. pat. 1,728,252, Sept. 17, 1929.—Waste liquor such as is obtained by pulping wood with sodium sulphite and sodium carbonate is concentrated and incinerated to form an ash; the ash is treated with a mixture of air and steam at a temperature to effect combustion of a part of the carbon present in the ash, thereby converting the sodium sulphide to carbonate and eliminating hydrogen sulphide; the resultant ash is dissolved in water to obtain sodium carbonate free from sulphide.—A.P.-C.

**Alkali Recovery from Pulp Liquors By A Chemical Engineering Process.** C. L. Wagner. J. O. Ross Engineering Corporation, New York. Ind. Eng. Chem. 22, 122-127 (Feb., 1930).—A new process for the recovery of alkali from black liquor is described. The furnace which accomplishes this is a vertical, stationary steel structure, with soapstone or other refractory lining, having a roof formed of boiler tubes, water-cooled tile, or suspended tile arch, and is connected to a water-tube boiler, with induced draft fan and scrubber, or other device, for removing the small amount of chemical carried out by the gases. This unit is almost identical in design for the soda and sulphate processes. Its function is to burn the volatiles and fixed carbons, securing absolute combustion, returning the chemicals for re-use in the most available form, eliminating wastes, labor, dirt, smoke and odors.—A.P.-C.

**Improving Cellulosic Materials Such As Jute Or Cotton.** Leon de Wolf. U. S. pat. 1,726,142, Aug. 27, 1929.—The material

is subjected in a crude state to the action of a solution of caustic soda and phenol to separate it from foreign substances and to transform it into a finished product suitable for manufacturing.—A.P.-C.

**Production of Cellulose.** Vickers, Ltd. Fr. pat. 664,406, Nov. 21, 1928.—Cellulose is obtained by digesting a vegetable substance with warm water under pressure, separating the furfural by distillation and treating the residue with caustic soda liquor at 160 deg. to 170 deg. C.—A.P.-C.

**Production of Cellulose Fiber.** Societe Anonyme Papeteries Navarre. Eng. pat. 306,072, Feb. 15, 1927.—In obtaining cellulose from wood, straw, etc., the material is heated in a series of heaters charged with and emptied of cellulose in turn, and the liquor, such as soda solution, is systematically circulated at the required temperature so that the material in the most advanced heating stages receives the fresh liquor while the raw material is treated with liquor which has passed through the previous heaters. Soda wood cellulose or straw cellulose of good light color is thus obtained.—A.P.-C.

**Pure Cellulose from Bagasse of Cane Sugar.** Ernest C. H. Valet, assignor to Cellulose Hemmer Valet, Soc. Anon. U. S. reissue 17,422, Sept. 3, 1929, of original pat. 1,630,147.—Sugar cane bagasse is treated with a solution containing 3 to 5 per cent of lime, boiled under pressure in a 6 per cent caustic soda solution containing also 2 to 3 per cent of sodium salts to dissolve foreign matter and separate it from the cellulose, and the cellulose is cleaned with fresh steam after separation from the solutions and is bleached.—A.P.-C.

**Cellulose Material for Paper Manufacture.** Carl Leyst. U. S. pat. 1,726,078, Aug. 27, 1929.—Finely disintegrated bamboo is boiled with quicklime to form a pulp, washed and pressed into coherent form, dried and treated with soda liquor.—A.P.-C.

**Cellulose from Highly Lignified Plants Such As Bamboo or Beechwood.** Roland Runkel assignor to Verein Fur Chemische Industrie Aktiengesellschaft. U. S. pat. 1,731,112, Oct. 8, 1929.—The raw material is comminuted and chemically softened (suitably by treatment with alkali solution) at atmospheric pressure, chemically reduced to fiber, and the fibers are subjected to successive multi-stage oxidation and chlorination, as by treatment with chlorine gas.—A.P.-C.

**Manufacture of Cellulose from Vegetable Fibers.** A. G. Pollard and J. R. Whincop. Eng. pat. 315,902, April 16, 1928.—Vegetable fibers are heated in a dilute alkaline solution, washed, drained and, while still moist and slightly alkaline, treated with chlorine until the mass becomes acid. It is then washed with a dilute solution of hydroxide or carbonate of an alkali metal or of ammonia.—A.P.-C.

**Foodstuff Containers of Fibrous Material.** John D. Rue, Sidney D. Wells and Francis G. Rawling. U. S. pat. 1,724,778, Aug. 13, 1929.—A fibrous material free from objectionable odor under cold-storage conditions is made from cereal straw by mildly cooking it until it is softened, but not pulped into ultimate fibers, with a solution formed solely of water, sodium carbonate and sodium sulphite.—A.P.-C.

**Straw Pulp By the Rinman Method.** Marquard H. Lund. American Legation, Oslo, Norway, Paper Trade J. 90, No. 3, 47-48 (Jan. 1, 1930).—In the Rinman process for the pulping of straw, the chopped and dusted straw is cooked in rotary digesters with a soda solution under a pressure of not more than 2 kilos (about 28 pounds per square inch) for approximately 3 hours. The contents are cooled and again cooked in a solution of strong liquor left from previous cooks. Otherwise the process differs very little from others now used. The pulp may be bleached; but if the temperature rises above 27 deg. C. the strength and bonding qualities of the fiber are impaired. Some of the advantages of the process are: lower soda consumption than by the kraft process, lower steam consumption owing to the lower pressure, yields up to 48 per cent, lower bleach requirements, shrinkage on bleaching only 3 per cent, considerable saving in power for heating and grinding, less care required in drying on the paper machines. The economics of the process are briefly discussed.—A.P.-C.

**High Yield in Straw Paper.** L. M. Booth. Booth Chemical Co. Paper Mill 53, No. 9, 5-6 (March 1, 1930).—The following process was devised with a view to eliminating fiber losses and stream pollution resulting from the washing of cooked straw: the straw is cooked with a smaller amount of chemicals than is the usual practice, the hot straw from the rotaries is delivered to the beaters with little or no washing, a coagulant is added to neutralize the residual alkali (chlorinated copperas was found satisfactory for the purpose, and is preferably added to the flow box of the machine). The following advantages are claimed: milder cooking action; lower stock losses; denser sheet due to retention of valuable paper making material; less steam required for drying; less frequent cleaning of wires and felts by "souring"; less stream pollution; increased yield resulting in a saving of 500 to 900 pounds of straw per ton of finished paper.—A.P.-C.

**Cellulose Pulp from Corn Stalks, Straw, Etc.** E. R. Darling assignor to Euromerican Cellulose Products Corp. Eng. pat. 314,061, June 22, 1928.—Material such as cornstalks, bagasse, rice and wheat straw, corn cobs, oat hulls, rice hulls, and cotton-seed hulls, of low lignin content and relatively higher pentosan content, is shredded and cleansed and then digested in hot water at about 10 pounds pressure, the water is drawn off, heated and spread into the top of the digester, passing out at the bottom and carrying with it the water-soluble substances. The material is then hydrolyzed (suitably with a dilute sulphuric acid solution), washed and degraded with dilute alkali under heat and moderate pressure.—A.P.-C.

**Mfg. of Cellulose from Vegetable Fiber.** A. G. Pollard and J. R. Whincop. Eng. pat. 321,282, Sept. 25, 1928.—Soaked or moistened cellulose material is suitably teased or loosened, treated with chlorine gas, subsequently in an alkaline solution of less than 3 per cent concentration, beaten, and washed. Surplus water is removed from the pulp and the chlorine treatment repeated, after which the pulp is washed successively in a slightly alkaline bath and complex silicates, and is further treated with alkali of not over 2 per cent strength by which the non-cellulosic material is (0.1 per cent), in water, in a dilute acid solution, and finally in water till neutral. The process is substantially cold throughout, and the pulp has a high alpha-cellulose content and is readily esterified.—A.P.-C.

**Cellulose from Cornstalks, Straw, Etc.** B. Dorner assignor to Euromerican Cellulose Products Corp. Eng. pat. 312,634, May 29, 1928.—The raw material is first finely shredded, leached with water, beaten, washed and screened, as described in Eng. pats. 283,851 and 286,211, and is then treated with dilute alkali solution (of less than 1 per cent strength) and washed to remove silica dissolved. Pentosans are recovered and may be used for stock feed or for producing alcohol. The cellulose obtained may be used for making paper, rayon, or other products.—A. P.-C.

**Process of Pulping Wood Or Other Cellulosic Material.** George A. Richter, assignor to Brown Co. U. S. pat. 1,736,013, Nov. 12, 1929.—The material is digested under atmospheric pressure at temperatures above 100 deg. C. in an aqueous cooking liquor comprising a fiber-liberating reagent, such as soda sulphide composition, and a water-miscible material such as glycerol permitting attainment of the desired temperature under atmospheric pressure.—A.P.-C.

**Liquor Preparation in the Manufacture of Pulp According to the Sulphate Process.** Finnish patent 12,456, March 22, 1927. Ludwig Ederer, Bjorneborg, Finland.—The sodium sulphate is dissolved in the liquor and the solution mixed with a strong diffusor liquor in a special container.—J.F.O.

### Raw Materials

**Sistal Boles (Stumps) and Poles From Kenya Colony As Sources of Paper Pulp.** Anon. Bull. Imp. Inst. 27, 293-298 (1929). The maximum, minimum and average fiber lengths

found were: boles 5.0, 1.0, 2.6 mm.; leaf-bases 2.0, 0.7, 1.2; mm. poles 6.0, 1.0, 3.1 mm. The fiber diameters were: boles 0.066, 0.018, 0.033 mm.; leaf-bases 0.064, 0.020, 0.033 mm. poles 0.041, 0.013, 0.023 mm. The ultimate fibers obtained from the boles and leaf-bases were quite unlike those of ordinary sisal leaf fiber, being very porous, and also short in proportion to their breadth, and consequently possessing little felting powers. The ultimate fiber from the dry poles were similar in appearance and size to those of sisal leaf fiber. The composition of the air dry material was: green bole (complete) moisture 8.7 per cent, ash 6.3 per cent, cellulose 49.7 per cent (54.4 per cent on the dry basis); dry bole (without leaf-bases) moisture 9.1 per cent, ash 3.4 per cent, cellulose 53.1 per cent (58.4 per cent on the dry basis); dry bole without leaf-bases and partially freed from pithy matter, moisture 10.5 per cent, ash 2.6 per cent, cellulose 44.3 per cent (49.5 per cent on dry basis); dry leaf-bases (from dry bole) moisture 11.1 per cent, ash 6.7 per cent, cellulose 49.5 per cent (55.7 per cent on dry basis); dry poles moisture 9.3 per cent, ash 3.6 per cent, cellulose 52.4 per cent (57.7 per cent on dry basis). On cooking with 20 per cent caustic soda at a concentration of 3 per cent for 5 hrs. at 160 deg. C., green boles yielded 46 per cent of unbleached pulp which was only partially disintegrated, owing mainly to the complex nature of the material; it furnished a coarse, dark brown, hard, rattly paper of unattractive appearance, showing excessive shrinkage, but of good strength. The pulp bleached fairly readily (yield 41 per cent on the original material) and then furnished a very pale cream paper of similar strength and quality to the unbleached paper. Only the pulp obtained from the poles possessed satisfactory "wet" strength, the pulps obtained from the boles and leaf-bases being exceedingly difficult to convert into paper. A.P.-C.

**Paper Pulp From New Zealand-Crown Woods.** A. R. Entrican. New Zealand J. Sci. Techn. 11, 65-80 (1929). Insignis pine and kahikatea groundwood pulps were yellowish but strong, the sulphite had a good color, and the sulphate pulp was good. Rimu and Kauri were generally suitable. Austrian and Corsican pines and European larch produced fairly strong wrapping papers. Of the hardwoods, tawa was best for a variety of pulps; the unbleached sulphite was suitable for a new type of newsprint. The remaining hardwoods were limited to bleached soda pulps for book and similar paper.—A.P.-C.

**Contribution to the Study of Pine Wood.** P. Marcel Soun. Institut du Pin, Bordeaux. Bull. Inst. Pin No. 64, 221-230 No. 65, 253-264, No. 66, 313-316 (Sept. 15-Nov. 15, 1930); Papeterie 51, 786-793 (July 25); 850-857 (Aug. 10); 974-978 (Sept. 10); 1034-1041 (Sept. 25); 1102-1109 (Oct. 10); 1162-1166 (Oct. 25); 1226-1233 (Nov. 10); 1305-1313 (Nov .25); 1354-1358 (Dec. 10, 1929). This article describes in detail the work carried out at the Institut du Pin, Bordeaux, under the direction of Georges DuPont, on the composition of pine wood and the transformations which it undergoes in nature after felling, and concludes with the ultimate fate of lignin in nature. Most of the results given have already been published. By means of a series of experimental soda cooks, it is shown that commercial cellulose can not be correctly defined from its behavior toward caustic soda; on the other hand, Klason's definition (namely, a carbohydrate insoluble at 98° to 100°C. in liquor containing 13 g. per liter of free sulphur dioxide) is shown to be satisfactory. Under certain conditions pine stumps remaining in the ground become highly resinified, the wood retaining its original strength: in this case resinification is generally due to transformation of the reserve materials into resins, though occasionally the production of resins is caused by symbiosis from neighboring trees, through joining of the roots. Fossilified coniferous wood very rich in free humic acid, but containing very little cellulose, was identified in peat from the Laluque basin, confirming Fischer and Schrader's theory that lignin is the only constituent of wood which forms the "humic compounds" of fossil fuels.—A.P.-C.

**Cellulose of Some Australian Plants.** William G. Arneman and John C. Earl. J. Proc. Roy. Soc. N. S. Wales 63, 44-46 (1929). Celluloses from all sources are not identical since acetylated celluloses from two woods, five water and one saline plant had optical rotations ranging from —21.1° to —39.9°. One was optically inactive.—A.P.-C.

**Cogon and Rice Straw As Raw Material for Paper Manufacture.** F. D. Reyes and A. O. Cruz. Philippine J. Sci. 38, 367-376 (1929). Cogon grass and rice straw are available in commercial quantities for the manufacture of paper. The yield of cogon is about 12 to 16 tons of air dry grass per hectare, but as the mose easily accessible land will probably in the future be devoted to agriculture the difficulties of transportation will increase. Rice straw, however, is a by-product and offers fewer transportation difficulties; further, rice straw requires only about 8 per cent of soda as against 20 per cent for cogon to give a bleachable pulp, and shows a higher yield. For cardboard cogon requires digestion with at least 4 per cent of soda and gives a yield of 51.5 per cent of pulp (oven dry pulp on oven dry grass), whilst rice straw requires only 2 per cent of caustic soda and gives a yield of 55.4 per cent. Cogon paper is somewhat stronger than that made from rice straw.—A.P.-C.

**Eucalyptus Saligna As a Source of Wood Pulp for Paper and Artificial Silk.** Anon. *Bull Imp.* Inst. 27, 449-452 (1929); Paper Makers Monthly J. 68, 17-18 (Jan. 15, 1930). A specimen of six-year-old *Eucalyptus saligna* from Zululand had the following composition; moisture 9.3 per cent, ash 0.5 per cent, cellulose 56.9 per cent (62.6 per cent on dry basis); fiber length 0.8 to 2.1 mm. (average 1.4 mm.) fiber diameter 0.0102 to 0.033 mm. (average 0.0163 mm.). Cooking 5 hrs. at 160°C. with 20 per cent of caustic soda at a concentration of 3 per cent yielded 55 per cent of well digested pulp which furnished a fairly soft, opaque, pale brown paper of good strength, but in which there remained a small quantity of imperfectly reduced material due most probably to the knotty nature of the wood. The pulp bleached with some difficulty to a cream color, yielding 50 per cent (on the original wood) of pulp which furnished a paper of similar strength and character to that from the unbleached pulp. The unbleached pulp was treated with 20 per cent of bleaching powder (on the original weight of the wood), immersed in 2 per cent sulphite solution for a short time, thoroughly washed, treated with 1 per cent hydrochloric acid, washed with distilled water, pressed and dried. A 42 per cent yield (on the original wood) was obtained of pulp having the following composition on the dry basis: ash 0.33 per cent, alpha-cellulose 85.0 per cent, beta cellulose 10.2 per cent, gamma-cellulose 4.8 per cent, copper number 2.04, phloroglucinol absorption value 1.6, soda absorption value 209, acetone extract 0.46 per cent. The alpha-cellulose is rather low and the beta-cellulose, ash, and phloroglucinol absorption value are rather high for rayon-grade pulp.—A.P.-C.

**Forests for Cellulose.** A. W. Schorger. C. F. Burgess Laboratories, Inc., Madison, Wis. Paper Tr. J. 89, No. 23, 66-67 (Dec. 5, 1929). A discussion of the advantage of wood as a source of cellulose and the possibilities of increasing the supply by sylviculture, with an indication of lines along which improvements could be made in commercial cellulose products (particularly rayon).—A.P.-C.

**Present and Future Trends in the Pulping of Southern Woods.** C. E. Curran, U. S. Forest Products Lab., Madison, Wis. Paper Tr. J. 90, No. 3, 49-53 (Jan. 16, 1930). Paper Mill 52, No. 51, 6, 8, 16-20 (Dec. 21, 1929); Paper Ind. 11, 1739-1744 (Jan. 1930). After a discussion of the advantages of the Southern States from the standpoint of furnishing a cheap, abundant and permanent supply of pulpwood, recent developments in the pulping of the Southern species of wood are discussed.—A.P.-C.

**Fermentation Products of Cellulose.** G. S. Boruff and A. M. Buswell. Illinois State Water Survey Division, Urbana, Ill. Ind. Eng. Chem. 21, 1181-1182 (Dec. 1929). It was found that in the anaerobic bacterial decomposition of cellulose, large amounts of gas are given off, consisting chiefly of carbon dioxide and methane in approximately equal proportions, corresponding to a breaking down of the cellulose according to the equation $C_6H_{10}O+H_2O \longrightarrow 3CO_2+3CH_4$. It is suggested that this might

be used in the corn belt to generate gas as a substitute for coal gas. The decomposition might be allowed to proceed only partially, and as the pith and finer fibers are digested first, the residue would be better than the raw corn stalks as a raw material for papermaking.—A.P.-C.

**Study of Wood Determination.** Francis J. Cirves. Mosinee Paper Mills Co., Mosinee, Wis. Paper Tr. J. 90, No. 10, 63-66 Mar. 6, 1930). Analyses of hemlock, tamarack, jack pine, balsam, cedar and spruce, of various degrees of aging, are tabulated and plotted bring out the changes on aging. The results are briefly commented upon.—A.P.-C.

**Product for and Process of Deinking Printed Paper.** William Lewis. Fr. pat. 664,059. Five parts of sodium and/or potassium silicate, two parts of caustic soda and one part of washing powder (such are "pearline") are dissolved in 5,000 parts of water. The printed paper is immersed in the solution and subjected to alternate agitation and compression between appropriate surfaces. The treatment may be repeated as often as required for the complete removal of the ink. The process may be carried out with alkali silicate alone. Printing ink can be completely removed at atmospheric temperature in from two to four minutes.—A.P.-C.

**Deinking Printed Paper Stock.** William Lewis. U. S. pat. 1,727,722, Sept. 10, 1929. The material is saturated with a solution of "washing powder," "lye," water glass and water, and subjected to pressure.—A.P.-C.

**Process and Apparatus for Working UP Waste Papers.** Anton Kuhn and Adolf Baer. Fr. pat. 670,419, Sept. 22, 1928. The waste papers are fed continuously to a breaker beater, pumped at a consistency of 3 to 6 per cent to a head box where the pulp is diluted with white water and from which it passes successively through a knotter type of screen to remove light impurities, a riffler to remove heavy impurities, a fine screen and a thickener.—A.P.-C.

**Instructions for Reworking Printed Papers.** Deyeux, Mollard, Pelletier and Verkaven. Papeterie 51, 1177-1181 (Oct. 25, 1929). The text of decree published by the French Government in the Year II of the Republic, prescribing the process to be followed in reworking printed paper.—A.P.-C.

### Cellulose and Lignin

**Spectrographic Investigation of Cellulose Derivatives.** B. Rassow and W. Aehnelt. Cellulosecheme 10, No. 11, 169-195 (Nov. 10, 1929). To know the characteristics and differences of the raw materials and the manufactured in cellulose investigation and industry, one turns to the physical properties and of them especially to the optimetric methods, such as the microscope and the camera. Photometric and fluorescence measuring in ultraviolet light brings out a further clearing up the various kinds of cellulose and their derivatives. Also roentgen rays are very helpful in determining the structure of cellulose. The Baly-Hartleysche method which depends on the absorption of light of various wave lengths passed through the tested substance in solution, is the method used in these experiments. The paper is then divided into, the preinvestigation of the materials used, nitro cellulose, acetyl cellulose, ethyl cellulose, cellulose in zinc chloride and fuming hydrochloric acid, cellulose in dispersion, cellulose xanthogenate, investigation with $Na_2CS_3$; all topics are exhaustively treated, with much data and curves. The following conclusions are arrived at, (1) collodium from cotton with varying contents of nitrogen absorbs the light strongly and gives an end spectrum, (2) nitro-cellulose from wood or straw cellulose show, despite the lower viscosity, stronger light absorption than cotton. Depolymerisation of cellulose complexes by mercerization and alteration of the cellulose also exerts, by the triacetate, a decrease in light absorption. Cellulose xanthogenate gives analogous to the ethylxanthogenate, selective absorption spectra. The power of light absorption of viscose, increases with longer ripening time, the selective spectrum will be smaller. Viscose dissolves quicker in sodium hydroxide than water. Because of the addition of sodium hydroxide, the cellulose xanthogenate as well as the salt, acts as a dibasic acid. The chemical change begins immediately with the dissolving of the xanthogenate and not first, at the end of the optimum ripening time. Salts of a strong acid with a weak base act stronger on the precipitate of viscose than salts of a strong acid with a strong base; if one uses the same normal salt solution.—J.F.O.

**Action of Caustic Soda on Cellulose.** I. Fukushima and Y. Takamatsu. J. Cellulose Inst. Tokyo 5, 255-262 (1929). The solubility of cellulose in sodium hydroxide solutions increases with decreasing temperature, and maxima are shown for 10, 8, and 7-8 volume-per cent solutions at, respectively, 20°, 7° and 10° C. Maximum solubility coincides with maximum swelling at 1° in an 8 volume-per cent solution. Maximum contraction of cellulose (as ramie silver) occurs with a 10 and 12 per cent solutions at 20° and 4° C., respectively, and contraction also increases with decreasing temperature. Contraction appears to be intimately connected with solubility and swelling, and it is thought that in mercerization contraction and dissolution occur before swelling. The viscosity of solutions of regenerated cellulose in cuprammonium increases with increasing solubility of the cellulose during mercerization, i.e., with increasing removal of hemicellulose. The viscosity of viscose prepared from alkali-cellulose depends on the temperature of mercerization. The hydrolysis value (Schwalbe) of regenerated cellulose increases with increasing concentration of the sodium hydroxide used, and also with decreasing temperature. Temperature has therefore a considerable effect on the properties of cellulose during and after mercerization.—A.P.-C.

**Purification of Wood Pulp; Japanese Pulp as Rayon Material.** H. Okada, T. Matsuda and E. Hayakawa. J. Cellulose Ins. Tokyo 5, 225-233 (1929). By first bleaching sulphite wood pulp and then digesting it with alkaline liquors a perfectly white pulp of low copper number is obtained, but the alpha-cellulose content and the viscosity are not satisfactory. If the order of treatment be reversed, however, the alpha-cellulose content of the product is excellent, but the copper number and whiteness are inferior and the viscosity may be low; moreover, the bleaching operation is difficult. The following procedure, which combines the advantages of both methods, is recommended on account of ease of bleaching, economy of materials, and superiority of all the physical and chemical properties of the product. The raw, unbleached pulp is treated with 40 per cent of the amount of chlorine necessary to give the ordinary complete bleach, then digested in the usual manner, and finally treated with the minimum amount of chlorine necessary to give a good white. Digestion of the pulp after chlorination with chlorine water was found to give the best results. Properties of viscoses prepared from cotton tissue-paper pulp, imported pulp and Japanese pulp purified in the manner described were investigated, and it was found that treads produced from the purified pulp had a higher wet tenacity than those from the imported pulp.—A.P.-C.

**Micelle Chemistry of Cellulose.** C. J. J. Fox J. Soc. Chem. Ind. 49, 83T-88T (Feb. 14, 1930). A review and discussion of our knowledge of cellulose from the standpoint of micelle chemistry, dealing more particularly with the application of the micelle concept to the interpretation of the phenomena and mechanism of viscose manufacture.—A.P.-C.

**Is There One and Only One Cellulose?** Louis E. Wise. N. Y. S. College of Forestry, Syracuse, N. Y. Cellulose 1, No. 1, 5-8 (Feb. 1930). A review of some of the more recent experimental data which furnishes some evidence in favor of the theory of the identity of cellulose from different sources, such as cotton, bamboo, wood, straw, etc. with a bibliography of 28 references. A.P.-C.

**Cellulose Pulp.** Jose M. Estape. Fr. pat. 667,591, Jan 18, 1929). Cellulose pulp for papermaking or other industry is made from the plants Gynerium Saccharoides and Arundo Donax.—A.P.-C.

Section of the
# COST DEPARTMENT
of the
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Edited by T. J. Burke C. A. Director Cost Dept.

# Market Analysis and Sales Cost*

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What I have to say on the study of market and sales analysis, is based upon two surveys and analyses that have been made during my experience in the last three or four years, and I am going to treat on these two surveys which deal with two entirely different businesses. One is a national company with a national distribution and the other is the company with which I am now working through the metropolitan district and the Atlantic seaboard.

Industry, with respect to the development of two of its major functions, production and distribution, is in the unpleasant position of having an advanced technique of production and a backward technique of distribution. Production speeds with the smoothness —the mechanical perfection—of the highest type motor car, while distribution limps as a single-cylinder car of the vintage of 1900.

### Can Plan Accurately and Boldly

The modern production manager, with his staff of industrial, mechanical, chemical, and cost engineers, personnel managers, and with every means of expert advice, can plan accurately and hence boldly, and can accomplish his planning because of the aid of the various technologies at his command; while the modern sales manager must depend upon intuition and opinion, since he lacks the technical aid which, to some extent, is due to his own lethargy in becoming acquainted with the science of distribution. It is not to be supposed that the last word has been said in production technique but, at least, the basic scientific groundwork is there; future development must be largely the filling-in of the skeleton of the structure. The future must display more of adaptation than of origination.

In the field of distribution, however, conditions are quite otherwise. The men who will rival Taylor, Gantt, Emerson, etc., in their fields, have not yet arisen or, perhaps, have not yet found full acceptance.

The work of the market analyst and sales counsellor is both of great importance and extreme interest, because it represents pioneering; the working out of a technology rather than merely the application of one. Yet, because of these conditions, it must be realized that any market survey is by nature a tentative and temporary survey, and its value is dependent upon the vision of management, and its effectiveness is only in proportion to its practical application to the business.

### Far Superior to Personal Opinions

However, while a market analysis is not perfect nor free from flaws, it is equally imperative to realize that no matter how faulty a survey may be, at least it is far superior to personal opinion, which is so often clouded with errors of observation and with prejudices, and that it will produce more perfect results than a "born salesman's" intuition, more perfect results being reflected in a lowered cost of distribution.

Distribution is under criticism today from all phases of business, particularly from the production executive and the ultimate vendor. The production executive, whose criterion of excellency is low cost, insists upon a distributive method that will allow him to run at the most efficient production rate.

On the other hand, the ultimate vendor which, to a large extent, is composed of chains, whether regular or cooperative, suffers from an increased cost of selling over the independent store. Largely, this increase is due to the necessity of advertising and of price concessions which they must grant in order to compete with the independent. Hence, chains must have a larger margin to do business and the most likely place to reduce cost, and, therefore, selling price, lies in more economical distribution. Between the demands of the regular and cooperative chain stores, and of the production executive, the profits of industry are being ground into the much-discussed profitless prosperity—volume but not much profit—unremunerated effort.

### Density of Demand in Market Areas

The essential effort of a market analysis then, is the effort to define the market and to determine the natural group classification of the market and, from that information, to synthesize a plan of action delimiting the portions of the market to be attacked under various plans. Thus, a geographic study of the market, determining the density of demand in the various natural marketing areas, is needed.

Upon inspection and classification, it usually reveals that portions of the total area to be covered will not, and cannot, repay the cost of covering by personal selling, and that they must be covered in other manners; for example, either by direct-mail selling, telephone selling, or some expedient less costly than selling by salesmen. Likewise, the market must be classified by volume groups and, usually, it is found that less costly selling methods ought to be applied to certain low volume groups. Then, too, a market must be studied with reference to its personal habits, whether these habits be related to climate, or to ancestry of the population, or to local customs, and the proper delimitations of selling effort again be made.

### Examples of This Factor

Examples of this latter factor are numerous; for instance, New York and Boston, cities of similar climates, of similarly mixed ancestry, and of apparently no great difference of habit, absolutely diametrically differentiate the kind of pork products they demand. New York requirements are for city dressed pork secured from a light hog; Boston calls for pork from a heavier hog. Boston de-

* N. A. C. A. Year Book.

mands the best of beef but has not demanded the highest quality of prepared meats. New York, with its thousands of delicatessen stores, demands the very best. In Jewish sections of New York, kosher brand prepared products are in demand; in other sections the regular prepared products are used. These are instances where the delimitation of selling effort is with respect to products used. On the other hand, Chicago buys from local dealers whilst Des Moines will deal to a great extent with mail-order houses. This is a case where local habits delimit selling methods. Whether distribution is national, state, or local, habits and consumptive power must not be taken for granted.

The basic elements of a market survey, then, are as follows:

**Analytical**

1—Geographic distribution of the total potential volume within the geographic limit of the survey.

2—Distribution of the potential outlets in graded steps of volume of purchases.

3—Determination of the habits affecting the potential market.

4—Determination of the trend of the potential volume and of actual volume, as well as the underlying causes.

**Synthesizing**

1—Determining the limits to which any particular selling plan will apply most economically, geographically and by volume of purchase.

2—Setting a selling policy that will cover the market economically. Since any single policy cannot possibly do this, the problem involves the application of the various selling methods, such as direct selling by salesmen, selling by direct delivery, contract selling, etc.

3—Setting a compensation plan for salesmen that will be as just to the salesmen as to the company, correlating the compensation on a basis of its relationship to the volume and profit on sales.

As examples of the various steps and principles used, I propose to outline the methods used, the observations made, the plans determined upon, and the results in two very diverse cases that have come under my personal observation and direction.

**The First Case—Semi-Necessity-Luxury Field**

The first case was that of a firm manufacturing and merchandising a specialty in the semi-necessity-luxury field. In this particular case, a thorough study of production methods and materials had been made with some decrease of cost, but the gain by this method was insignificant compared to the gain needed. The older methods of attacking selling expense therefore were tried, but without success, as each economy brought about lower sales volume and, hence, gross and net profits. A thorough market survey therefore was determined upon and begun.

In this case, it developed that geographic distribution of the market and style element in the folk-ways were two important factors. The factors of the distribution of outlets were of importance because there was little variation between high and low and because the high-volume purchasers demanded concessions in the form of discounts and subsidized selling that made items less profitable than the low-volume class. The trend of potential volume was not favorable, as the market had just passed a critical point of volume increase, and the apparent probabilities were that, at the best, a slow steady increase paralleling the increase of population might be looked for; at the worst, considering style trends, a market decrease in potential volume might be expected. Thus, selective selling could be no solution to the problem; and, equally, drifting with the current, allowing the market trend to solve the problems, could only result in continuing unsatisfactory results or in positive disaster.

**Methods Used in Analysis**

The geographic study, however, gave promise of being a valuable aid to reducing cost to sell. The methods used in the analysis of the geographic distribution of the market were as follows:

Since the first element of any geographic study is the setting of the unit area, the first effort was to determine the unit area to be used and to delimit these areas. Obviously, the political units, particularly states and counties, are not the best units for this type of work, since states include too many varying types of population and counties are too small and, generally, throughout the greater portion of the country, not provided with towns of sufficient size to serve as centers. The unit finally selected was the marketing area, determined by a study of the distribution of outlets, by transportation conditions, and, insofar as they could be determined, by the actual purchasing habits of the population. The scheme, after completion, was checked by the Department of Commerce survey of grocery marketing areas and by Thompson's survey of dry goods marketing areas. In some cases, it appeared advisable to split counties, but, despite the errors occasioned by not splitting them, this was not done, because of the impossibility of obtaining accurate data for any political unit smaller than the county. As finally accepted, the areas numbered 496 for the country as a whole. This is believed to be correct for the product in question, but will vary widely from one commodity to another.

The next step was to determine the relative density of purchasing population in each of these areas. This population when graded on a density basis, showed a concentration of 90 per cent of the market in 45 per cent of the area of the nation.

**Relative Purchasing Power**

The next step was to determine the relative purchasing power and to some degree the relative demand for the commodity in the various areas. For this purpose a geometric mean of the per capita averages of telephones, automobiles (excluding trucks), income taxes, and the combined Curtiss publications and Literary Digest circulations was used.

This feature is, perhaps, the weakest portion of the survey, but it was found that there was a high correlation between the factor so developed and the actual consumption in the few areas where this was known and upon multiplying the special population by the factor, and then by the average annual volume of business per consumer (determined by spotted questionnaires) a quite fair check of national volume and distribution was obtained, with the exception of the south eastern and south central states. These states had an actual consumption far above the indicated and, upon further study, it was determined that this was due to two factors. First, the average consumption was larger and the use of the product began earlier in life and continued later; and, second, the age of the brand, combined with the greater conservatism of these states, gave it a higher consumer demand, there than elsewhere. This is an excellent example of a case in which folk-ways profoundly modify the predictable normal market.

When the special population density modified by the relative purchasing power factor was considered, it was immediately apparent that a geographic selection of the area to be covered by salesmen would reduce the cost to sell whether either of two policies were adopted. The alternative policies were: First, to eliminate non-productive territory and reduce the sales staff, or, second, to retain the same size sales staff but to concentrate their effort on productive territory.

**The Policy Adopted**

The policy adopted was to retain the same number of salesmen, to eliminate non-productive territory and, hence, to concentrate effort in the more productive territory. The eliminated territory was reduced into exclusive jobber territories, except for some small areas which either were to be neglected entirely or solicited by mail. The results were the elimination of 45 per cent of the areas of the country, with the elimination of only 4 per cent of the volume, the increase of the selling efforts in the more remunerative fields, and the ultimate result was the production of greater profit.

The method of enforcing the sales policy was, of course, comparatively simple. The adoption of a commission plan was one element; the other was furnishing the salesman a route list, keeping him in the productive portion of his territory. To be definite

no town of less than 5,000 was included on the list, and isolated towns of 5,000 to 10,000 were placed on a less-than-normal coverage basis.

While there was no great difficulty in forcing coverage of urban areas or of rural areas, it developed that the salesmen were distinctly inclined to neglect the suburban areas. The sales records, therefore, were completed to cover all potential outlets, and a quarterly checking of customers called on but not sold, as well as of customers not called on, thus served to get a higher percentage of the market which, in two years' time, rose to 57 per cent of the selected outlets.

### The Second Case—A Strictly Necessity-Field

The second case was that of a firm manufacturing and merchandising a staple product in a strictly necessity field. In this case, no solution could be looked for in geographic study, as the field of selling was confined to the metropolitan area of New York, and, likewise, no dependence could be placed upon trend for a solution, as the market increased nearly parallel to population trend, which is about 1 per cent per annum. Results might be obtained from studies of the volume classes of outlets and from special sales incentives offered to the salesmen.

The selling of this product was conducted by means of route salesmen, that is, men who sell, deliver and collect, in large part, in one operation, working from a store on wheels. The control of these salesmen had been ineffective; each, to all intents and purposes, was an individual business man, provided, on credit, with his goods and assisted by the loan of a specially constructed truck. Changing these men over to representatives of the firm presented a problem in compensation plans, and sales incentive plans, as well as control.

Naturally, sales territories consisted rather of lists of customers than of actual areas or districts. Thus the same area might be covered by as many as four route salesmen. Obviously, this increased the expense of distribution because of the extra mileage covered by the trucks and because of the large ratio of traveling time to selling time, which is especially true in the routes covering the dense city areas.

Also, the route men served many customers whose weekly sales were insufficiently large. The cost study disclosed that it was unprofitable to serve these customers, and a different method of serving them was necessary, or selling effort in this direction suspended.

### Analytical Function of the Survey

The analytical function of the survey included the following studies:

1—A study of the distribution of the market among classes of customers, graded by their weekly purchases. This developed the fact that a trifle less than 70 per cent of the potential customers represented 95 per cent of the total potential volume.

2—A cursory geographic study of the market, chiefly with reference to distribution of customers and traffic flow. This was done in order to set up exclusive route territories, and not in order to determine unproductive areas which, in the limited area covered, do not exist.

3—A cost study covering the elements of distribution cost, and their linkages, and of gross margins. This, when correlated with the first study, provided the means of determining the limits to which any method of selling could be applied.

4—A study of the reaction of the route salesmen to various plans to compensate them for the loss of their "independent business man" attitude. This was with particular reference to the basic wage that must be paid and to the incentive for sales increase over the base that the house could afford.

### Divided Into Two Natural Parts

The synthetic functions then divided into two natural parts:—

1—The determination of the proper route territories, basing this upon approximate equality of opportunity for all route men, both with respect to present customers and to potential customers. The ratio of traveling time to selling time, which would be larger in the suburban routes, was compensated for by increasing the length of time in the territory by means of larger trucks and less frequent visits to the plant for supplies. The other side of the problem, caring for customers whose business, if they are served by route methods, is unremunerative, was solved by the trial of a comparatively new method in the industry, that of solicitation of orders by telephone combined with the surprisingly excellent special delivery service that can be rendered, at low cost, by motorcycles with special side-cars. The solution of this portion of the problem was not of extreme difficulty, as well developed methods of solution were available.

2—The setting of a compensation plan for the route men that would fulfill the condition developed in the study of the analytical function. Since there are no logically developed methods of setting base wage and sales incentive plans as there are in the case of production incentive plans, a more laborious and less scientific approach was necessary. This method consisted of the formulation of plans, the plotting of their effect at various volumes with relation to cost per hundredweight of sales, percentage of cost to sell to sales, and to the increase of compensation rate with increase of sales. The plan was then subjected to critical examination by the executives concerned, and all objections and suggestions carefully considered.

Naturally, the next step was the modification of the plans to meet the objections and to embody the suggestions, and then to again subject them to the critical process. By the process of elimination, then, the final plan was selected, after it had been thoroughly checked as to the house profit possibilities, the incentive to the salesmen to increase sales, and the provision of an adequate base salary to carry the route salesmen through the period of building up a new route, or through the periods of depression (whether seasonal or due to short-period weather conditions).

### A Number of Plans Discussed

It is evident that a number of plans were suggested and discussed; in fact, these numbered about thirty-five, and it would be too detailed to attempt to discuss all the plans and, too, it would require far more time than is available or than is profitable to spend on this feature. Several plans have been selected as being most representative of the type of plans considered. It is necessary to define some of the terms to be employed.

Class "A" refers to a group of products carrying a higher margin and comparatively high sales resistance.

Class "B" refers to a group of products carrying a low margin and a comparatively low sales resistance.

Base Wage refers to the guaranteed minimum wage of the route men.

Commission refers to the amount of incentive paid for sales over the base wage.

Plan Number 1 provided for a basic wage and a straight commission on sales value, differential being established for class "A" and class "B" products. While this plan provides an incentive to sell class "A" products rather than class "B," and also provides a satisfactory base wage, the commission to be paid under the plan does not provide for any added incentive to reach the higher sales brackets and, in addition to this defect, is based upon sales in dollars which, since the price of the products is subject to market variation, and since the gross margin is more constant as dollars per hundredweight than as percentage to sales, is quite likely to prove unsatisfactory during violent price fluctuations. The advantage of this plan is a fairly low cost on the lower sales brackets, and is not too high on the higher sales brackets.

Plan Number 2 is a modification of plan number 1, except the modification of the ratio of class "A" products to class "B."

Plan Number 3 provides the highest base wage proposed, plus a low rate of commission on total sales value on the higher brackets only, plus also additional commission on high-margin products

based upon sales tonnage. The defects of this plan are, in the main, similar to those outlined in Plan Number 1, plus two additional defects; first, the very high cost to sell in the lower sales brackets; second, the very small incentive to sell class "A" products.

PLAN NUMBER 4 provides for a larger basic rate, but a reduced rate of commission on class "A" and class "B" products. While this plan would be too costly in sales expense in the lower bracket of sales, and up to and including an amount considered as average sales for the route, it also has all the defects of Plan Number 1.

PLAN NUMBER 5 provides a fair base wage, plus a graduated commission on class "A" and class "B" products based on tonnage. Commission on class "A" products is sufficiently greater to provide the proper incentive toward the sales of a higher ratio of class "A" products. The graduated scale of commission is such as to provide an adequate additional incentive in the higher sales brackets. Also, since this plan is based on sales tonnage rather than sales value, one of the major defects of the various plans is eliminated.

The cost to do business is not too high in the lower sales brackets and, while the amount paid the salesmen in the higher sales brackets increases rapidly, it does not decrease house profits. Plan Number 5 was finally adopted as being the most equitable to salesmen and the house.

PLAN NUMBER 6 provides for a minimum basic salary, the salary to increase as sales increase over a specific amount. A differential commission is allowed on the class "A" and class "B" products. This plan shows comparatively low cost on the lower sales brackets, but shows a high cost on sales that represent the large percentage of the individual route sales.

PLAN NUMBER 7 provides for a basic salary and additional bonus on a basis of each additional unit of sale, regardless of whether class "A" or class "B" products are sold. This plan gives the salesman the advantage and results in a highest cost to sell. The plan has its disadvantages because of its high cost to sell and does not offer any incentive to class "A" products. In addition, this plan requires a great deal of administrative effort.

### Success Depends Upon Practical Application

In the formulation of the compensation plan and its relationship to the cost of distribution, any attempt to institute any plan that is not adapted to any particular organization is doomed to failure, as its success is dependent upon its practical application to the particular business. A plan of similar procedure may be successful in one industry but not necessarily successful in another similar industry.

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### Unity Paper Mills Settlement

[FROM OUR REGULAR CORRESPONDENT]

POTSDAM, N. Y., October 18, 1930.—Documents filed this week in federal court indicate that the Unity Paper Mills, of this village, are started on the way to a settlement with creditors. In an application to Judge Frederick H. Bryant for postponement of adjudication in bankruptcy it was set forth that 90 per cent of the second mortgage creditors and 60 per cent of the general creditors have agreed to accept a percentage of their claims. According to Bernard Wade, receiver, the task of obtaining consent of more of the creditors is under way and a sufficient sum has been pledged to make the payments suggested. The percentage decided upon to settle all claims will, it is believed, allow the firm to continue in operation without any further difficulty.

If the plans are effected the company will be free from all further claims except the first mortgage. It was stated that as soon as the consent of more creditors is obtained the proposed settlement will be submitted to the court for approval. In order to allow this work to proceed smoothly Judge Bryant has postponed the bankruptcy adjudication to early in December. Meanwhile the mills are being operated at full capacity with orders booked ahead and there are very slight prospects of any curtailments.

## Trade Mark Department

CONDUCTED BY NATIONAL TRADE-MARK CO., WASHINGTON, D. C.

The following are trade mark applications pertinent to the paper field pending in the United States Patent Office, which have been passed for publication and are in line for early registration unless opposition is filed promptly. For further information address National Trade-Mark Company, 900 F street, N. W., Washington, D. C., trademark specialists. As an additional service feature to its readers, PAPER TRADE JOURNAL gladly offers to them an advance search free of charge on any mark they may contemplate adopting or registering.

NEPCO, and representation of a seal. Ser. No. 292,819. Nekoosa-Edwards Paper Company, Port Edwards, Wis. For wrapping and printing paper and converting paper used in making paper bags, boxes, napkins, novelties, etc.

EST. 1842 DAVEY. Ser. No. 301,589. The Davey Company, Jersey City, N. J. For tar and binders boards made of paper used in manufacturing covers for books, sit cases, trunks, etc.

BLUE LABEL. Ser. No. 301,590. The Davey Company, Jersey City, N. J. For tar and binders boards made of paper used in manufacturing covers for books, sit cases, trnks, etc.

GREEN LABEL. Ser. No. 301,591. The Davey Company, Jersey City, N. J. For tar and binders boards made of paper used in manufacturing covers for books, suit cases, trunks, etc.

RED LABEL. Ser. No. 301,592. The Davey Company, Jersey City, N. J. For tar and binders boards made of paper for use in the covers of books, suit cases, and trunks, etc.

RIEGEL'S PAPERS SINCE 1862, and picture of a factory, lake, trees, etc. Ser. No. 302,334. Riegel Paper Corporation, Riegelsville, N. J. For wrapping paper, bristol board, cover paper, tag board, rope, jute, sulphite pulp papers and glassine paper.

AMERICAN FAMILY TABLEWARE and representation of eagle. Ser. No. 303,057. Keyes Fibre Company, Inc., Waterville, Me. For dishes, plates, blue plates, vegetable bowls, etc., all made from paper pulp or fibre.

PRO-TEK-STAX. Ser. No. 303,145. Elmer Abramson, St. Louis, Mo., assignor to Central States Paper and Bag Company, St. Louis, Mo., a corporation of Missouri. For stack covers made of reinforced waterproof paper consisting of two sheets of craft paper cemented together with asphalt reinforced through the asphalt with cordage.

NAPOLEON I, and portrait of Napoleon. Ser. No. 304,966. Montag Brothers, Inc., Atlanta, Ga. For writing paper and envelopes.

RAG CONTENT. Ser. No. 296,922. Rag Content Paper Manufacturers, Springfield, Mass. For paper containing 25 per cent or more of rags for letter, documents, adding machines, etc.

SCHOLASTIC, and fanciful representation of a school. Ser. No. 300,135. S. H. Kress & Co., New York City. For composition book, notebooks, and looseleaf binders.

EQUITABLE PARCHMENT. Ser. No. 303,798. M. P. Basso & Co., Inc., New York City. For bond paper.

WIPLOT. Ser. No. 303,960. Fort Howard Paper Company, Green Bay, Wis. For paper towels, paper napkins, toilet paper, and colored crepe paper.

PALMER ORTHO-OPTIC, and representation of a human eye. Ser. No. 304,424. The A. N. Palmer Company, New York City. For writing tablets, loose-leaf practice paper, notebook filler paper, and composition books.

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### Bids for Government Paper

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., October 22, 1930—The Government Printing Office has received the following bids for 16,000 pounds of 24 x 36 320, H. F. red sulphite paper; Traentum Paper Mills, at 7.25 cents per pound; Reese & Reese, Inc., 7.3 cents; Barton, Duer & Koch Paper Company, 9.75 cents.

For 40,000 pounds of manila calendered tag board in 23¼-inch rolls; Whitaker Paper Company, at 7.13 cents; Barton, Duer & Koch Paper Company, 7.2 cents.

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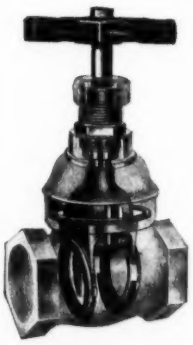

Fig. 0201

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## NEW YORK IMPORTS

WEEK ENDING OCTOBER 18, 1930

### SUMMARY

| | |
|---|---|
| Cigarette paper | 49 bls., 104 cs. |
| Wall paper | 84 bls., 24 cs. |
| Paper hangings | 12 bls., 4 cs. |
| News print | 98 bls., 823 rolls |
| Printing paper | 62 cs. |
| Wrapping paper | 11 bls., 37 cs. |
| Sulphate paper | 188 rolls |
| Filter paper | 20 cs. |
| Drawing paper | 40 cs. |
| Baryta coated paper | 77 crats, 26 cs. |
| Metal coated paper | 165 cs. |
| Coated paper | 24 cs. |
| Surface coated paper | 78 cs. |
| Colored paper | 13 cs. |
| Decalcomania paper | 58 cs. |
| Tissue paper | 19 cs. |
| Parchment paper | 18 bls. |
| Writing paper | 19 cs. |
| Veneer paper | 2 cs. |
| Stencil paper | 1 cs. |
| Envelopes | 40 cs. |
| Miscellaneous paper | 472 rolls, 102 bls., 87 cs. |

### CIGARETTE PAPER

P. J. Schweitzer, Pr. Polk, Marseilles, 104 cs.
Max Spiegel & Son, Pr. Polk, Genoa, 49 bls.

### WALL PAPER

C. F. Lamalle, Rotterdam, Rotterdam, 1 cs.
F. J. Emmerich, Baltic, Liverpool, 3 bls.
Thomas & Pierson, Leviathan, Southampton, 1 cs.
Kensington Wallpaper Co., American Merchant, London, 14 bls.
R. F. Downing & Co., Homeric, Southampton, 3 cs.; Aquitania, Southampton, 1 cs.
T. D. Downing & Co., Aquitania, Southampton, 1 cs.
Irving Trust Co., New York, Hamburg, 12 cs.
F. J. Emmerich, New York, Hamburg, 17 bls.
Bendix Paper Co., New York, Hamburg, 4 cs.
J. E. Bernard & Co., New York, Hamburg, 50 bls.
Phoenix Shipping Co., New York, Hamburg, 1 cs.

### PAPER HANGINGS

W. H. S. Lloyd & Co., Minnekahda, London, 10 bls., 2 cs.
Whiting & Patterson Co., Inc., Homeric, Southampton, 4 cs., 1 ble.; Aquitania, Southampton, 1 ble.

### NEWS PRINT

Stora Kopperberg Corp., Drottningholm, Gothenburg, 205 rolls.
Scripps Howard Supply Co., Drottningholm, Gothenburg, 54 rolls.
The Times Co., Drottningholm, Gothenburg, 58 rolls.
——, Bergensfjord, Oslo, 98 bls., 227 rolls.
J. Madden Corp., New York, Hamburg, 227 rolls.
——, New York, Hamburg, 52 rolls.

### PRINTING PAPER

E. Dietzgen & Co., Rotterdam, Rotterdam, 24 cs.
Japan Paper Co., Rotterdam, Rotterdam, 2 cs.
Kennedy & Co., Rotterdam, Rotterdam, 4 cs.
C. Steiner, Berlin, Bremen, 14 cs.
P. C. Zuhlke, Belgenland, Antwerp, 4 cs.
Burroughs Wellcome & Co., American Merchant, London, 2 cs.
T. N. Fairbanks Co., Aquitania, Southampton, 1 cs.
Keuffel & Esser Co., America, Hamburg, 11 cs.

### WRAPPING PAPER

Sylvania Industrial Corp., Belgenland, Antwerp, 37 cs., 11 bls.

### SULPHATE PAPER

Insight Paper Co., Bergensfjord, Frederickstad, 188 rolls.

### FILTER PAPER

H. Reeve Angel & Co., Inc., Minnekahda, London, 8 cs.
C. Schleicher Schull Co., New York, Hamburg, 12 cs.

### DRAWING PAPER

H. Reeve Angel & Co., Inc., Minnekahda, London, 2 cs.
Keuffel & Esser Co., America, Hamburg, 38 cs.

### BARYTA COATED PAPER

J. H. Schroeder Banking Corp., Berlin, Bremen, 77 crates.
Globe Shipping Co., Berlin, Bremen, 26 cs.

### METAL COATED PAPER

Globe Shipping Co., Berlin, Bremen, 130 cs.
K. Pauli Corp., New York, Hamburg, 31 cs.
Hensel Bruckman & Lorbacher, New York, Hamburg, 1 cs.
Universal Car Loading Co., New York, Hamburg, 3 cs.

### COATED PAPER

Bank of America Natl. Assn., New York, Hamburg, 24 cs.

### SURFACE COATED PAPER

P. C. Zuhlke, Belgenland, Antwerp, 14 cs.
Gevaert Co. of America, Belgenland, Antwerp, 63 cs.
Quality Art Novelty Co., Belgenland, Antwerp, 1 cs.

### COLORED PAPER

Quality Art Novelty Co., New York, Hamburg, 5 cs.
D. F. Young, New York, Hamburg, 8 cs.

### DECALCOMANIA PAPER

B. F. Drakenfeld & Co., Baltic, Liverpool, 10 cs. (simplex); 19 cs. (duplex).
C. W. Sellers, New York, Hamburg, 25 cs.
Phoenix Shipping Co., New York, Hamburg, 4 cs.

### TISSUE PAPER

R. F. Fischer & Bro., Laconia, Liverpool, 10 cs.
Meadows Wye & Co., Laconia, Liverpool, 5 cs.
W. J. Byrnes, Aquitania, Southampton, 2 cs.
F. C. Strype, New York, Hamburg, 2 cs.

### PARCHMENT PAPER

Walker Goulard Plehn Co., New York, Hamburg, 18 bls.

### WRITING PAPER

Guibout Freres, France, Havre, 3 cs.
Penson Co., France, Havre, 3 cs.
H. Kayser fils, France, Havre, 1 cs.
B. Altman Co., Homeric, Southampton, 2 cs.
J. E. Bernard & Co., Homeric, Southampton, 1 cs.
Globe Shipping Co., Aquitania, Southampton, 7 cs.
W. H. Block Co., New York, Hamburg, 2 cs.

### VENEER PAPER

Int'l Forwarding Co., Tokiwa Maru, Yokohama, 2 cs.

### STENCIL PAPER

W. L. Newberry, Aquitania, Southampton, 1 cs.

### ENVELOPES

J. Beckhard, Berlin, Bremen, 40 cs.

### MISCELLANEOUS PAPER

Globe Shipping Co., Rotterdam, Rotterdam, 10 cs.
J. Beckhard, Rotterdam, Rotterdam, 6 cs.
C. Bruning Co., Rotterdam, Rotterdam, 133 rolls.
J. H. Faunce, Rotterdam, Rotterdam, 11 cs.
P. J. Schweitzer, Lafayette, Havre, 3 cs.
Standard Products Corp., Lafayette, Havre, 33 cs.
The Borregaard Co., Inc., Drottningholm, Gothenburg, 135 rolls, 54 bls.
M. M. Cohen, Drottningholm, Gothenburg, 204 rolls, 47 bls.
J. E. Andersen, Drottningholm, Gothenburg, 3 cs.
Keller Dorian Paper Co., France, Havre, 15 cs.
L. Bamberger & Co., France, Havre, 2 cs.
Houbigant, Inc., France, Havre, 1 cs.
Charta Corp., Tokiwa Maru, Osaka, 1 cs.
Titan Shipping Co., New York, Hamburg, 1 ble., 2 cs.

### RAGS, BAGGINGS, ETC.

W. Steck & Co., Sac City, Rotterdam, 36 bls. cotton waste.
Castle & Overton, Inc., Sud Pacifico, B. Ayres, 307 bls. cottons.
W. von Doorn, Rotterdam, Rotterdam, 131 bls. rags.
R. F. Downing & Co., Rotterdam, Rotterdam, 144 bls. bagging.
Castle & Overton, Inc., Ohio Maru, Hamburg, 108 bls. rags.
Darmstadt Scott & Courtney, Exminster, Genoa, 40 bls. bagging.
Banco Coml. Italaine Trust Co., Exminster, Genoa, 218 bls. bagging.
E. J. Keller Co., Inc., Exminster, ——, 150 bls. rags; Hoxie, ——, 67 bls. bagging.
A. W. Fenton, Inc., America, Hamburg, 33 bls. rags.

### OLD ROPE

Brown Bros. & Co., London Corp., Dundee, 110 coils.
International Trust Co., Exchange, Barcelona, 54 bls.

### CHINA CLAY

J. Dixon Crucible Co., New York, Hamburg, 400 bags.

### WOOD PULP

M. Gottesman & Co., Inc., Sac City, Rotterdam, 1,150 bls. sulphite, 115 tons.
Atterbury Bros., Inc., Fred. VIII, Oslo, 600 bls. sulphite, 100 tons.
Chemical Bank & Trust Co., Fred VIII, Osto, 30 bls. sulphite, 5 tons.
E. M. Sergeant & Co., Drottningholm, Gothenburg, 449 bls. kraft soda pulp.
Perkins Goodwin & Co., Drottningholm, Gothenburg, 127 bls. sulphite.
Price & Pierce, Ltd., Drottningholm, Gothenburg, 250 bls. wood pulp.
M. Gottesman & Co., Inc., Drottningholm, Gothenburg, 1,500 bls. sulphite.
D. M. Hicks, Inc., Ohio Maru, Hamburg, 128 bls. wood pulp, 25 tons.
E. M. Sergeant & Co., Bergensfjord, Oslo, 150 bls. chemical pulp.
Johanson Wales & Sparre, Inc., Bergensfjord, Amotfors, 205 bls. sulphate.
——, Bergensfjord, Drammen, 400 bls. sulphite.
Chemical Bank & Trust Co., Bergensfjord, Oslo, 570 bls. wood pulp.
——, Bergensfjord, Oslo, 1,777 bls. sulphite.

### PULPWOOD

Chase National Bank, New Westminster City, Archangel, 3,527 cords.

### WOOD FLOUR

State Chemical Co., Rotterdam, Rotterdam, 400 bags.

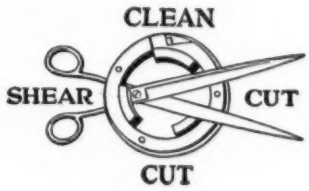
## PHILADELPHIA IMPORTS

WEEK ENDING OCTOBER 18, 1930

Pagel Horton & Co., Inc., Stockholm, Husum, 6,000 bls. sulphate, 1,000 tons.
Brown, Bros., London Corp., London, 44 coils old rope.
Baring Bros. & Co., London, Corp., London, 42 coils old rope.
Philadelphia National Bank, London Corp., London, 30 bls. rags.
The Lang Co., London Corp., London, 384 bls rags.

*(Continued on page 58)*

# LANGSTON

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## New Lodding Press Doctor

**Self Aligning Flexible Blade**
**Feeds Out**
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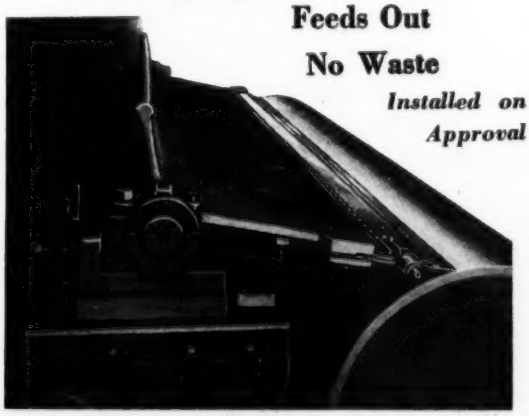

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**KNOX WOOLEN COMPANY**
**CAMDEN, MAINE**

**SOLD BY**

**BULKLEY, DUNTON & COMPANY**
**75-77 Duane St., N. Y., and direct**

# Imports of Paper and Paper Stock

*(Continued from page 56)*

E. J. Keller Co., Inc., London Corp., ——, 85 bls. rags.
J. A. Steer & Co., Bristol City, Bristol, 169 coils old rope.
Union Waste Co., Tokiwa Maru, Kobe, 40 bls. rags.
Belgam Corp., Tokiwa Maru, Kobe, 25 bls. rags.
J. Rosenberg, Tokiwa Maru, Kobe, 9 bls. rags.
E. J. Keller Co., Inc., Cabo Mayor, ——, 38 bls. rags; Idarwald, 245 bls. rags; 510 bls. wood pulp; Binnendyk, ——, 43 bls. rags; West Arrow, ——, 179 bls. rags.
Bulkley Dunton & Co., Idarwald, ——, 126 bls. wood pulp; Westfalen, ——, 424 bls. wood pulp.

## BOSTON IMPORTS

WEEK ENDING OCTOBER 18, 1930

1st National Bank of Boston, Sardinian Prince, B. Ayres, 417 bags casein, 25,020 kilos.
International Purchasing Co., Exminster, Genoa, 75 coils old rope.
Bulkley Dunton & Co., Consul Olsson, ——, 5,425 bls. wood pulp; Topeka, ——, 2,875 bls. wood pulp; West Arrow, ——, 940 bls. wood pulp; West Harcuvar, ——, 1,000 bls. wood pulp.

## BALTIMORE IMPORTS

WEEK ENDING OCTOBER 18, 1930

M. Gottesman & Co., Stockholm, Helsingfors, 1,214 bls. wood pulp, 203 tons.
Atterbury Bros., Inc., Stockholm, Helsingfors, 732 bls. wood pulp, 123 tons.
Pagel Horton & Co., Inc., Stockholm, Hornefors, 1,950 bls. sulphite, 325 tons; Stockholm, Husum, 4,800 bls. sulphate, 800 tons.
Bulkley Dunton & Co., Aegina, ——, 2,600 bls. wood pulp; Mexicano, ——, 800 bls. wood pulp; Nooderdyk, ——, 1,970 bls. wood pulp; Vasaholm, ——, 2,450 bls. wood pulp.

## Charles H. Burr With Great Northern

[FROM OUR REGULAR CORRESPONDENT]

WATERTOWN, N. Y., October 18, 1930.—Many of the paper mill men will probably be interested in knowing that Charles H. Burr, well known in local mill circles in the early days of the industry, is now connected with the Great Northern Paper Company at East Millinocket, Maine. With that concern he has won an enviable reputation as a technical trainer of men. He supervises the activities in the mills and also the wood pulp storage at Dolby Lake where the facilities for storing 150,000 cords of spruce are available. Incidentally, however, that company is conserving its own tracts and buying most of its pulp wood in Canada. His name has become familiar wherever news print is manufactured and the mill which he has served as superintendent for the past twelve years is rated as one of the largest paper mills in the world.

The career of "Charlie" Burr reads like fiction. As a young man his days were spent in this city but he was always ambitious and seeking a way to better himself. He became connected with the Watertown Paper Company and in his spare hours he secured a correspondence course in mechanical engineering. After mastering it he was advanced quickly and it was not long before his services were in great demand. After leaving that concern he filled various positions in mills in Fulton, Herkimer and Norfolk, gradually advancing to the position of head machine tender. Next he worked for the International Paper Company and served as assistant superintendent at mills at Fort Edward and Palmer Falls. In 1914 the Great Northern reached out for him and he was appointed superintendent of its mill at Madison, Maine. A few years later he was summoned to its banner mill at East Millinocket where he has since served as superintendent.

Like all the paper mills and manufactories controlled by the Carlisle interests in Northern New York the Great Northern Paper Company contrived to pass through the recent depression without any closing of mills, laying off men or cutting of wages and as in the case of the new Carlisle mills at Oswego the employees have not had occasion to know that any existed.

## Oswegatchie Paper Co.'s Affairs

[FROM OUR REGULAR CORRESPONDENT]

GOUVERNEUR, N. Y., October 18, 1930.—It was learned here this week that the Watertown National Bank as bondholders' trustee of the mortgages against the property of the Oswegatchie Paper Company is giving careful consideration to a proposition calling for foreclosure and liquidation at a public auction. A meeting of the first mortgage and refunding mortgage bondholders was held this week for the purpose of discussing the subject and Attorney Sam Child has been named head of the committee of first mortgage bondholders. The other committee appointed some time ago consists of Samuel B. Wardwell, president and general manager of the Oswegatchie Paper Company; James E. Campbell, head of the Dexter Sulphite Pulp and Paper Company; Robert J. Buck, president of the Northern New York Trust Company and H. E. Goodhue, of the Eastern Townships Lumber Company, Ltd., of Quebec.

The Oswegatchie Paper Company was organized a few years ago to take over and develop the mill property of the old Aldrich Paper Company at Natural Dam and operated steadily until 1928 when lack of a profitable market caused a suspension of operations. Most of the help formerly employed by the company have secured positions with other paper mills in this vicinity and despite frequent rumors that activities were to be started again there is no indication of an early resumption. Since the shutdown two years ago taxes and interest have been piling up on the property and the Watertown National Bank has advanced about $40,000 to conserve it.

This constitutes a first lien on the property which would have to be met out of the proceeds of a sale. After that the claims of the first mortgage bondholders and refunding mortgage bondholders would have to be satisfied and it was for the purpose of protecting their rights that the meeting was held this week. There are about $600,000 in first mortgage bonds and between $800,000 and $900,000 in refunding mortgage bonds held against the property. The plant is one of the most modern and best equipped in Northern New York and has valuable water power rights on the Oswegatchie River. A large tract of valuable timberlands is also included in the property.

## To Distribute Crocker-Burbank Papers

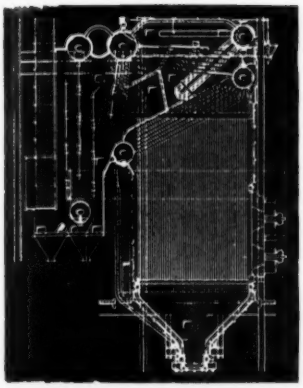
[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., October 20, 1930—A sales meeting of Carter Rice & Co., Corp. was held Saturday, October 18, at the office of the company, in connection with the introduction of the Crocker, Burbank line of book papers. Mr. Eaton, of Clark & Co., New York City, selling agents for Crocker, Burbank, discussed the characteristics, printing qualities and other essential facts in regard to each grade of these papers.

Carter Rice & Co. who have secured exclusive distribution of the papers, in order to properly introduce them to New England printers, are preparing sample books, demonstrating the fine printing qualities and serving as a reference for sizes, weights, etc. The books, which are expected to be ready within ten days, are to be distributed personally by the Carter Rice sales force.

The books are illustrated in four-color process, straight halftone, line cut, and type, with each cut printed on the particular grade of paper to which the process is suited. Samples of all the basic weights in which the papers are manufactured are inserted in the books. The papers include Hermes Book, English finish; Elseca Book, super-calendered, and Saturn Book, wove and laid Antique.

These papers have never before been available through a stocking agent in the New England printing trade.



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installed in some of the largest pulp and paper mills in the United States and Canada

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**Result:—Enormous savings in cost of pulp and paper produced.**

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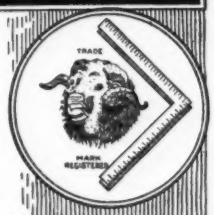

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## New York Market Review

Office of the PAPER TRADE JOURNAL,
Wednesday, October 22, 1930.

Trading in the local paper market was fairly active during the past week. Demand for the various standard grades of paper is gradually expanding and supplies are moving into consumption in good volume. Inquiries for future needs are frequent and the outlook for the balance of the year is promising. Prices are generally holding to formerly quoted levels.

Production of news print is being maintained in sufficient volume to take care of current requirements. Close observers of the situation are hopeful of the results of the various conferences now being held by leading interests of the industry. Restriction of output to demand and stabilization of prices is confidently looked for, in some quarters.

The paper board market is practically unchanged. While demand for box board is fairly persistent, the price situation is still unsatisfactory. The fine paper market is exhibiting a strong undertone and prices are steady, in most instances. Tissues are going forward in seasonal volume. The trend of the coarse paper market is irregular although wrapping paper is in better request than of late.

### Mechanical Pulp

Steadiness prevails in the ground wood market. Offerings of both domestic and foreign mechanical pulp are about sufficient to take care of immediate requirements. There are a number of inquiries around for future account. Prices are generally holding to formerly quoted levels and there is little talk of concessions around at present.

### Chemical Pulp

Demand for both imported and domestic chemical pulp is showing signs of improvement and more lively trading is anticipated from now on to the end of the year, at least. Shipments against contract are going forward in fairly satisfactory volume for the time of year. While competition is rather keen, no further price changes have been reported.

### Old Rope and Bagging

The old rope market was moderately active. Foreign and domestic old manila rope are in seasonal request. Small mixed rope is moving in good volume. Prices are fairly steady. The bagging market was rather quiet. Foreign gunny No. 1 is now quoted at from $1.50 to $1.60 and domestic at from $1.65 to $1.75. New burlap cuttings remain unchanged.

### Rags

Most of the business transacted in the domestic rag market was along routine lines. Some grades of cotton cuttings, however, were in good request. Demand for roofing stock is showing signs of improvement. The imported rag market was rather dull. New dark cuttings are now quoted at from $2.30 to $2.50 and new white cuttings are selling at from $7.75 to $8.50.

### Waste Paper

The paper stock market is exhibiting a stronger undertone. The better grades are generally steady to firm. Offerings of white envelope cuttings are decidedly limited. Hard and soft white shavings are in excellent request. Book stock is fairly steady. Board mills are displaying more interest in the lower grades of waste paper. The price situation, however, leaves room for improvement.

### Twine

Conditions in the local twine market are fairly satisfactory for the season. Considering the general business depression, demand for the various grades is excellent. With the near approach of the Yuletide holidays business should be brisk for the balance of the year. Prices are generally holding to previously quoted levels, and shading is infrequent.

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## Consolidated Paper Stock Co. Expands

[FROM OUR REGULAR CORRESPONDENT]

DAYTON, Ohio, October 22, 1930—The Consolidated Paper Stock Company is making enlargements and improvements to its Dayton plant. Already two large mill construction warehouse buildings are occupied on Cincinnati street by the company of which Leon A. Slavin is the head.

The concern has built up a large business in the collection and marketing of wastepaper, collected from a large number of business houses, stores, factories, print shops and newspaper plants in Dayton and vicinity.

The latest large scale machinery and equipment have been installed in the warehouses for the handling of the paper and rag stock and a fleet of large motor trucks is maintained by the organization for the salvaging and collection of paper from all sections of the Miami Valley.

In the field of waste paper alone great progress has been made. A larger percentage of used paper is finding its way back to the paper mill for remanufacture into useful articles. This in itself is a move toward the conservation of forest resources, for every ton of waste paper salvaged is just that much pulp saved.

Americans are generally known as prodigals and wasters, very careless of natural resources and without regard for the vast volume of materials cast aside each year, hence it is a commendatory thing when waste materials are reclaimed and utilized in a practical manner.

The public has been educated to preserve its waste paper and in many localities it is a recognized fact that old papers and magazines, cardboard and other products are considered the same as so much money, easily convertible into cash. Householders, business men, schools and public institutions thus save paper materials.

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## A.P.W.'s Business Expanding

[FROM OUR REGULAR CORRESPONDENT]

ALBANY, N. Y., October 18, 1930.—The latest report of the A.P.W. Paper Company indicates an unusually prosperous year for the fiscal twelve months ending June 30. Net profits are placed at $213,349 in contrast to $95,609 for the previous year. The business of the firm is reported to have taken a big jump since it was taken over by the Babson organization and the plant in this city has been running at full capacity. There has been no decrease in the tonnage of wood pulp being received from the Nova Scotia mills and shipments will continue to be received at the local port until navigation is suspended by cold weather.

## Arthur D. Little, Inc.

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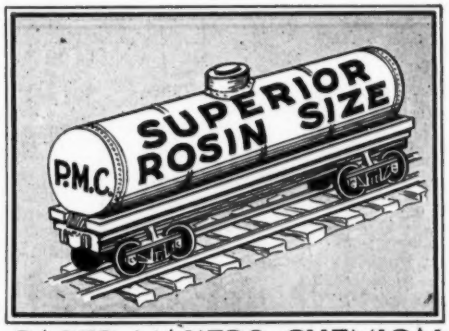


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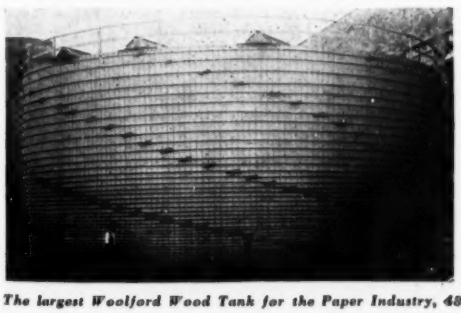

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**G. WOOLFORD WOOD TANK MFG. CO.**
PASCHALL PO PHILADELPHIA—Office and Factory—Darby, Pa.

# Miscellaneous Markets

Office of the PAPER TRADE JOURNAL,
Wednesday, October 22, 1930.

BLANC FIXE.—Trading in the blanc fixe market was fairly active. The contract movement was normal. Prices remain unchanged. The pulp is quoted at from $42.50 to $45.00 per ton, while the powder is still selling at from 3¾ cents to 4½ cents per pound, in barrels, at works.

BLEACHING POWDER.—The position of the bleaching powder market is practically unchanged. Contract shipments are going forward at a satisfactory pace. Prices are generally holding to schedule. Bleaching powder is quoted at from $2.00 to $2.35 per 100 pounds, in drums, at works.

CASEIN.—Demand for casein is light and prices have declined. Domestic standard ground is quoted at 10½ cents and finely ground at 13¼ cents per pound. Argentine standard ground is selling at 13 cents and finely ground at 13½ cents per pound, all in bags, car lot quantities.

CAUSTIC SODA.—Steadiness prevails in the caustic soda market. The contract movement is well up to average. Solid caustic soda is still quoted at from $2.90 to $2.95, while the flake and the ground are selling at from $3.30 to $3.35 per 100 pounds, in large drums, at works.

CHINA CLAY.—The china clay market continues steady. Supplies are moving into consumption in good volume. Prices are unchanged. Imported china clay is quoted at from $15 to $25 per ton, ship side, while domestic paper making clay is selling at from $8 to $13 per ton, at mine.

CHLORINE.—Most of the business transacted in the chlorine market during the past week was along routine lines. Prices are generally holding to formerly quoted levels. Chlorine is quoted at from $2.40 to $2.45 per 100 pounds, in tanks, or multi-unit cars, in ton lots, or over, at works.

ROSIN.—Considerable weakness developed in the rosin market. Prices declined sharply. The grades of gum rosin used in the paper mills are quoted at from $5.35 to $5.40 per 280 pounds, in barrels, at yard. Wood rosin is now offered at $4.56 per 280 pounds, in car lots, on dock.

SALT CAKE.—The salt cake market is exhibiting a strong undertone. While demand from the mills is fairly persistent offerings are not excessive. Prices are steady. Salt cake is quoted at from $22 to $25 per ton, while chrome salt cake is selling at from $20 to $21 per ton, in bulk, at works.

SODA ASH.—Supplies of soda ash are moving into consumption in good volume. Inquiries for future needs are fairly numerous. Prices are holding to formerly quoted levels. Contract quotations on soda ash, in car lots, at works, are as follows: in bags, $1.32½; and in barrels, $1.55 per 100 pounds.

STARCH.—The trend of the starch market is fairly strong. Contract shipments are going forward to the paper mills in good volume for the season. Prices remain unchanged. Special paper making starch is quoted at $3.62 per 100 pounds, in bags; and at $3.89, in barrels, at works.

SULPHATE OF ALUMINA.—Contract shipments of sulphate of alumina are moving in a satisfactory manner. Prices are generally holding to schedule without difficulty. Commercial grades are quoted at from $1.40 to $1.55, and iron free at from $1.90 to $2.05 per 100 pounds, in barrels, at works.

SULPHUR.—The sulphur market is in a sound position. Prices are unchanged. Sulphur is quoted at $18 per ton, at mine, on orders of 1,000 tons, or over, on yearly contracts, and at $20 per ton for any smaller quantity over that period. On spot and nearby car loads, the quotation is $21 per ton.

TALC.—While the talc market was rather quiet, the contract movement was normal and prices were well maintained at former levels. Domestic talc is quoted at from $16 to $18 per ton, in bulk, and imported talc is still selling at from $18 to $20 per ton, in bags, ship side.

# Market Quotations

## Paper

(F. o. b. Mill)

| | | | |
|---|---|---|---|
| Ledgers | 11.00 | @ | 38.00 |
| Bonds | 9.00 | @ | 53.25 |
| Writings— | | | |
| Extra Superfine | 14.00 | @ | 32.00 |
| Superfine | 14.00 | @ | 32.00 |
| Tub sized | 10.00 | @ | 15.00 |
| Engine sized | 8.00 | @ | 11.00 |
| Book, Cased— | | | |
| S. & S. C. | 6.00 | @ | 7.50 |
| M. F. | 5.75 | @ | 7.00 |
| Coated and Enamel | 7.50 | @ | 12.00 |
| Lithograph | 7.50 | @ | 12.00 |
| Tissues—Per Ream— | | | |
| White No. 1 | .75 | @ | 1.00 |
| Anti-Tarnish | 1.35 | @ | 1.90 |
| Colored | 1.00 | @ | 2.00 |
| White No. 2 | .75 | @ | .80 |
| Kraft | 1.00 | @ | 1.10 |
| Manila | .75 | @ | .80 |
| Kraft— | | | |
| No. 1 Domestic | 5.75 | @ | 6.25 |
| No. 2 Domestic | 3.75 | @ | 5.00 |
| Southern | 3.50 | @ | 4.50 |
| Imported | 6.50 | @ | 7.00 |
| Manila— | | | |
| No. 1 Jute | 9.00 | @ | 9.25 |
| No. 2 Jute | 7.75 | @ | 8.50 |
| No. 1 Wood | 4.75 | @ | 5.25 |
| No. 2 Wood | 4.00 | @ | 4.50 |
| Butchers | 3.75 | @ | 4.25 |
| Fibre Papers— | | | |
| No. 1 Fibre | 5.00 | @ | 5.50 |
| No. 2 Fibre | 4.75 | @ | 5.25 |
| Common Bogus | 2.75 | @ | 3.00 |
| Screenings | 3.00 | @ | 3.25 |
| Card Middles | 4.00 | @ | 5.00 |
| Glassine— | | | |
| Bleached, basis 25 lbs. | 13.00 | @ | 16.00 |
| Bleached, basis 20 lbs. | 15.00 | @ | 16.00 |

(Delivered New York)

| | | | |
|---|---|---|---|
| News, per ton— | | | |
| Rolls, contract | 62.00 | @ | — |
| Rolls, spot | 62.00 | @ | — |
| Sheets | 67.00 | @ | — |
| Side Runs | 47.00 | @ | 52.00 |
| Boards—per ton— | | | |
| News | 30.00 | @ | — |
| Straw | 40.00 | @ | — |
| Chip | 27.50 | @ | — |
| Binders' Boards | 65.00 | @ | 70.00 |
| 85 Test Jute Liner | 37.50 | @ | 40.00 |
| Sgl. Mla. Ll. Chip. | 42.50 | @ | 45.00 |

(F. o. b. Mill)

| | | | |
|---|---|---|---|
| Wood Pulp Boards | 75.00 | @ | 80.00 |

## Mechanical Pulp

(On Dock)

| | | | |
|---|---|---|---|
| No. 1 Imported— | | | |
| Moist | 28.00 | @ | 30.00 |
| Dry | 30.00 | @ | 32.00 |

(F. o. b. Mill)

| | | | |
|---|---|---|---|
| No. 1 Domestic | 26.00 | @ | 30.00 |

## Chemical Pulp

(On Dock, Atlantic Ports)

| | | | |
|---|---|---|---|
| Sulphite (Imported)— | | | |
| Bleached | 3.00 | @ | 4.25 |
| Easy Bleaching | 2.60 | @ | 2.80 |
| No. 1 strong unbleached | 2.10 | @ | 2.65 |
| Mitscherlich unbleached | 2.25 | @ | 2.85 |
| No. 2 strong unbleached | 2.10 | @ | 2.35 |
| No. 1 Kraft | 1.65 | @ | 2.15 |
| No. 2 Kraft | 1.55 | @ | 1.65 |
| Sulphate— | | | |
| Bleached | 3.40 | @ | 3.85 |

(F. o. b. Pulp Mill)

| | | | |
|---|---|---|---|
| Sulphite (Domestic)— | | | |
| Bleached | 2.65 | @ | 4.75 |
| Easy Bleaching Sulphite | 2.55 | @ | 2.75 |
| News Sulphite | 2.35 | @ | 2.60 |
| Mitscherlich | 2.75 | @ | 3.25 |
| Kraft (Domestic) | 2.10 | @ | 3.30 |
| Soda Bleached | 2.90 | @ | 3.20 |

## Domestic Rags

New Rags

(Prices to Mill f. o. b. N. Y.)

| | | | |
|---|---|---|---|
| Shirt Cuttings— | | | |
| New White, No. 1 | 8.25 | @ | 8.75 |
| New White, No. 2 | 7.25 | @ | 7.75 |
| Silesias No. 1 | 6.50 | @ | 7.00 |
| New Unbleached | 9.00 | @ | 9.50 |
| New Blue Prints | 5.25 | @ | 5.50 |
| New Soft Blacks | 4.50 | @ | 5.00 |
| Blue Overall | 6.50 | @ | 6.75 |
| Washables | 4.25 | @ | 4.75 |
| Fancy | 4.75 | @ | 5.25 |
| Mixed Khaki Cuttings | 4.75 | @ | 5.25 |
| Pink Corset Cuttings | 7.50 | @ | 8.00 |
| O. D. Khaki Cuttings | 5.15 | @ | 5.75 |
| Men's Corduroy | 3.75 | @ | 4.25 |
| New Mixed Blacks | 3.50 | @ | 3.75 |

Old Rags

| | | | |
|---|---|---|---|
| White, No. 1— | | | |
| Repacked | 5.50 | @ | 6.00 |
| Miscellaneous | 4.50 | @ | 5.00 |
| White, No. 2— | | | |
| Repacked | 3.00 | @ | 3.50 |
| Miscellaneous | 2.50 | @ | 2.75 |
| St. Soiled, White | 2.00 | @ | 2.15 |
| Thirds and Blues— | | | |
| Repacked | 2.25 | @ | 2.50 |
| Miscellaneous | 1.75 | @ | 2.00 |
| Black Stockings | 3.25 | @ | 3.75 |
| Roofing Rags— | | | |
| Cloth Strippings | 1.25 | @ | 1.30 |
| No. 1 | 1.25 | @ | 1.30 |
| No. 2 | .90 | @ | 1.00 |
| No. 3 | .70 | @ | .80 |
| No. 4 | .65 | @ | .70 |
| No. 5A | .50 | @ | .60 |

## Foreign Rags

New Rags

| | | | |
|---|---|---|---|
| New Dark Cuttings | 2.30 | @ | 2.50 |
| New Mixed Cuttings | 2.25 | @ | 2.75 |
| New Light Silesias | 6.25 | @ | 6.50 |
| Light Flannelettes | 6.50 | @ | 7.00 |
| Unbleached Cuttings | 9.00 | @ | 9.50 |
| New White Cuttings | 7.75 | @ | 8.50 |
| New Light Oxfords | 6.00 | @ | 6.50 |
| New Light Prints | 4.75 | @ | 5.25 |

Old Rags

| | | | |
|---|---|---|---|
| No. 1 White Linens | 7.25 | @ | 8.00 |
| No. 2 White Linens | 5.75 | @ | 6.75 |
| No. 3 White Linens | 4.75 | @ | 5.25 |
| No. 4 White Linens | 3.00 | @ | 3.50 |
| No. 1 White Cotton | 5.50 | @ | 6.25 |
| No. 2 White Cotton | 4.50 | @ | 5.00 |
| No. 3 White Cotton | 3.00 | @ | 4.00 |
| No. 4 White Cotton | 1.75 | @ | 2.10 |
| Extra Light Prints | 2.75 | @ | 3.00 |
| Ord. Light Prints | 2.15 | @ | 2.40 |
| Med. Light Prints | 1.65 | @ | 1.75 |
| Dutch Blue Cottons | 2.10 | @ | 2.20 |
| French Blue Linens | 2.65 | @ | 2.75 |
| German Blue Linens | 2.25 | @ | 2.40 |
| German Blue Cottons | 1.85 | @ | 1.90 |
| Checks and Blues | 1.85 | @ | 1.90 |
| Lindsay Garments | 1.20 | @ | 1.30 |
| Dark Cottons | 1.00 | @ | 1.10 |
| Old Shopperies | .95 | @ | 1.00 |
| New Shopperies | .95 | @ | 1.05 |
| French Blues | 1.90 | @ | 2.00 |

## Old Rope and Bagging

(Prices to Mill f. o. b. N. Y.)

| | | | |
|---|---|---|---|
| Gunny No. 1— | | | |
| Foreign | 1.50 | @ | 1.60 |
| Domestic | 1.65 | @ | 1.75 |
| Wool Tares, light | 1.35 | @ | 1.45 |
| Wool Tares, heavy | 1.40 | @ | 1.45 |
| Bright Bagging | 1.35 | @ | 1.45 |
| Small Mixed Rope | 1.15 | @ | 1.25 |
| Manila Rope— | | | |
| Foreign | 2.85 | @ | 3.00 |
| Domestic | 3.25 | @ | 3.50 |
| New Burlap Cut | 2.25 | @ | 2.50 |
| Hessian Jute Threads— | | | |
| Foreign | 3.50 | @ | 4.00 |
| Domestic | 2.50 | @ | 2.75 |

## Old Waste Papers

(F. o. b. New York)

| | | | |
|---|---|---|---|
| Shavings— | | | |
| Hard, white, No. 1 | 3.00 | @ | 3.25 |
| Hard, white, No. 2 | 2.40 | @ | 2.55 |
| Soft, white, No. 1 | 2.80 | @ | 2.90 |
| White envelope cuttings | 2.90 | @ | 3.10 |
| Flat Stock— | | | |
| Stitchless | 1.30 | @ | 1.40 |
| Overissue Mag. | 1.30 | @ | 1.40 |
| Solid Flat Book | 1.20 | @ | 1.30 |
| Crumpled No. 1 | .90 | @ | 1.00 |
| Solid Book Ledger | 2.00 | @ | 2.10 |
| Ledger Stock | 1.30 | @ | 1.40 |
| New B. B. Chips | .35 | @ | .45 |
| Manilas— | | | |
| New Env. Cut. | 2.40 | @ | 2.60 |
| New Cuttings | 1.50 | @ | 1.75 |
| Extra No. 1 old | 1.25 | @ | 1.35 |
| Print | .60 | @ | .65 |
| Bogus Wrapper | .60 | @ | .65 |
| Container | .40 | @ | .50 |
| Old Kraft Machine— | | | |
| Compressed bales | 1.45 | @ | 1.55 |
| News— | | | |
| No. 1 White News | 1.77 | @ | 1.87 |
| Strictly Overissue | .50 | @ | .55 |
| Strictly Folded | .35 | @ | .40 |
| No. 1 Mixed Paper | .25 | @ | .30 |
| Common Paper | .15 | @ | .20 |

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*Manufacturers of*

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**500 Tons Daily**

*We will be glad to send you samples—*

### Twines
(F. o. b. Mill)

| | | | |
|---|---|---|---|
| Cotton— | | | |
| No. 1 | .39 | @ | .40 |
| No. 2 | .37 | @ | .38 |
| No. 3 | .36 | @ | .37 |
| B. C., 18 basis | .38 | @ | .40 |
| A. B. Italian, 18 basis | .48 | @ | .53 |
| Finished Jute— | | | |
| Dark 18 basis | .24 | @ | .25 |
| Light 18 basis | .27 | @ | .28 |
| Jute Wrappings, 3-6 Ply— | | | |
| No. 1 | .19 | @ | .21 |
| No. 2 | .18 | @ | .20 |
| Tube Rope— | | | |
| 4-ply and larger | .16 | @ | .17 |
| Fine Tube Yarn— | | | |
| 5-ply and larger | .21 | @ | .25 |
| 4-ply | .25 | @ | .29 |
| 3-ply | .28 | @ | .32 |
| Unfinished India— | | | |
| Basis | .13 | @ | .14 |
| Paper Makers Twine Balls | .11 | @ | .12 |
| Box Twine, 2-3 ply | .15 | @ | .17 |
| Jute Rope | .17 | @ | .19 |
| Amer. Hemp, 6 | .29 | @ | .31 |
| Sisal Hay Rope— | | | |
| No. 1 Basis | .16 | @ | .18 |
| No. 2 Basis | .14 | @ | .16 |
| Sisal Lath Yarn— | | | |
| No. 1 | .14 | @ | .16 |
| No. 2 | .12 | @ | .14 |
| Manila Rope | .22 | @ | .24 |

## CHICAGO

### Paper
(F. o. b. Mill)

| | | | |
|---|---|---|---|
| Rag Bond | .30 | @ | .53¼ |
| Water Marked Sulphite Bond | .09 | @ | .12 |
| Sulphite Bond | .06¼ | @ | .11 |
| Superfine writing | .18 | @ | .24 |
| No. 1 fine writing | .14 | @ | .18 |
| No. 2 fine writing | .12 | @ | .14 |
| No. 3 fine writing | .08½ | @ | .12 |
| No. 1 M. F. Book | .06½ | @ | .07¼ |
| No. 2 M. F. Book | .05¼ | @ | .06¼ |
| No. 1 S.&S.C. Book | .06¼ | @ | .07¼ |
| No. 2 S.&S.C. Book | .05¼ | @ | .06½ |
| Coated Book | .07½ | @ | .12 |
| Coated Label | .07½ | @ | .10 |
| No. 1 Manila | .04¼ | @ | .05¼ |
| No. 1 Fibre | .04¼ | @ | .05¼ |
| No. 2 Manila | .04¼ | @ | .04¾ |
| Butcher's Manila | .04 | @ | .04½ |
| No. 1 Kraft | 5.00 | @ | 5.50 |
| Southern Kraft | 3.75 | @ | 4.00 |
| No. 2 Kraft | 3.75 | @ | 4.00 |
| Wood Tag Boards | .04¼ | @ | .06½ |
| Sulphite Sreenings | .03 | @ | .03¼ |
| Manila Tissue— | | | |
| 24x36 Sheet | .07 | @ | .07¼ |
| White Tissue— | | | |
| 20x30 Sheet | .07¾ | @ | .07½ |
| (Delivered Central Territory) | | | |
| News, per ton— | | | |
| Rolls, contract | 62.00 | @ | — |
| Sheets | 67.00 | @ | — |
| Boards, per ton— | | | |
| Plain Chip | 30.00 | @ | 35.00 |
| Solid News | 37.50 | @ | — |
| Solid News | 32.50 | @ | 37.50 |
| Manila Lined Chip | 40.00 | @ | 45.00 |
| Container Lined— | | | |
| 85 Test | 50.00 | @ | 55.00 |
| 100 Test | 55.00 | @ | 60.00 |

### Old Papers
(F. o. b. Chicago)

| | | | |
|---|---|---|---|
| Shavings— | | | |
| No. 1 Hard White | 2.35 | @ | 2.40 |
| White Env. Cut- | | | |
| No. 1 Soft Shavings | 2.10 | @ | 2.15 |
| No. 1 Mixed | .30 | @ | .35 |
| No. 2 Mixed | .25 | @ | .35 |
| Ledger & Writings | 1.25 | @ | 1.35 |
| Solid Books | 1.05 | @ | 1.10 |
| Blanks | 1.60 | @ | 1.65 |
| Krafts | 1.30 | @ | 1.40 |
| New Kraft Cuts | 1.50 | @ | 1.70 |
| Manila Envelope Cuttings | 1.65 | @ | 1.70 |
| Ex. No. 1 Manila | 1.30 | @ | 1.45 |
| Print Manila | .45 | @ | .50 |
| Folded News (over-issue | .40 | @ | .45 |
| Old Newspapers— | | | |
| No. 1 | .35 | @ | .40 |
| No. 2 | .30 | @ | .35 |
| Mixed Papers— | | | |
| No. 1 | .30 | @ | .35 |
| Roofing Stocks— | | | |
| (F. o. b. Chicago, net cash) | | | |
| No. 1 | 30.00 | @ | — |
| No. 2 | 28.00 | @ | — |

## PHILADELPHIA

### Paper
(F. o. b. Mill)

| | | | |
|---|---|---|---|
| Bonds | .05 | @ | .40 |
| Ledgers | .08 | @ | .40 |
| Writings— | | | |
| Superfine | .12½ | @ | .18 |
| Extra fine | .18 | @ | .22 |
| Fine | .17 | @ | .26 |
| Fine, No. 2 | .15 | @ | .25 |
| Fine, No. 3 | .09 | @ | .20 |
| Book, M. F. | .05 | @ | .07 |
| Book, S. S. & C. | .05 | @ | .07½ |
| Book, Coated | .09 | @ | .16 |
| Coated Lithograph | .07 | @ | .11 |
| Label | .07 | @ | .11 |
| No. 1 Jute Manila | .07 | @ | .09 |
| Manila Sul., No. 1 | .03½ | @ | .05½ |
| Manila No. 2 | .03 | @ | .04 |
| No. 1 Kraft | .05¼ | @ | .06 |
| No. 2 Kraft | .03½ | @ | .04 |
| Southern Kraft No. 1 | — | @ | .03¾ |
| Southern Kraft No. 2 | — | @ | .03½ |
| Common Bogus | .03 | @ | .04 |
| (Delivered Philadelphia) | | | |
| News Print Rolls | 62.00 | @ | — |
| Straw Board | 52.50 | @ | 70.00 |
| News Board | 32.50 | @ | 35.00 |
| Chip Board | 30.00 | @ | 32.00 |
| Wood Pulp Board | 85.00 | @ | 95.00 |
| Binder Boards— | | | |
| No. 1, per ton | 75.00 | | |
| No. 2, per ton | 70.00 | | |
| Carload lots | 68.00 | @ | 70.00 |
| Tarred Felts— | | | |
| Regular | 55.50 | @ | 57.00 |
| Slaters (per roll) | .84 | @ | .94 |
| Best Tarred, 1-ply (per roll) | 1.95 | @ | 2.10 |
| Best Tarred, 2-ply (per roll) | 1.50 | @ | 1.60 |
| Best Tarred, 3-ply | 2.00 | @ | 2.25 |

### Domestic Rags (New)
(Price to Mill, f. o. b. Phila.)

| | | | |
|---|---|---|---|
| Shirt Cuttings— | | | |
| New White, No. 1 | .09 | @ | .09½ |
| New White, No. 2 | .07 | @ | .07½ |
| Light Silesias | .07 | @ | .07½ |
| Silesias, No. 1 | .07 | @ | .09 |
| Black Silesia, soft | .05 | @ | .05½ |
| New Unbleached | .08½ | @ | .09 |
| Washable, No. 1 | .04½ | @ | .05 |
| Blue Overall | .07½ | @ | .08 |
| Cottons—According to grades— | | | |
| Washable, No. 2 | .03 | @ | — |
| New Blue | .03 | @ | .03¼ |
| Fancy | .05 | @ | .05½ |
| New Black Soft | .05 | @ | .05¾ |
| New Light Seconds | .02½ | @ | .03 |
| New Dark Seconds | 1.85 | @ | 2.00 |
| Khaki Cuttings— | | | |
| No. 1 O. D. | .05½ | @ | .05¾ |
| No. 2 Mixed | .04½ | @ | .04¾ |
| Corduroy | .03 | @ | .03½ |
| New Canvas | .08½ | @ | .09 |
| New Black Mixed | .03¾ | @ | .04½ |

### Bagging
(F. o. b. Phila.)

| | | | |
|---|---|---|---|
| Gunny, No. 1— | | | |
| Foreign | 1.50 | @ | 1.60 |
| Domestic | 1.75 | @ | — |
| Manila Rope | 3.50 | @ | 4.00 |
| Sisal Rope | 1.50 | @ | — |
| Mixed Rope | 1.10 | @ | 1.25 |
| Scrap Burlaps— | | | |
| No. 1 | 1.50 | @ | 1.60 |
| No. 2 | 1.10 | @ | 1.20 |
| Wool Tares, heavy | 3.00 | @ | — |
| Mixed Strings | 1.15 | @ | 1.25 |
| No. 1, New Light Burlap | 2.50 | @ | 2.75 |
| New Burlap Cuttings | 2.00 | @ | 2.25 |

### Old Papers
(F. o. b. Phila.)

| | | | |
|---|---|---|---|
| Shavings— | | | |
| No. 1 Hard White | 2.65 | @ | 2.75 |
| No. 2 Hard White | 2.30 | @ | 2.50 |
| No. 1 Soft White | 2.25 | @ | 2.50 |
| No. 2 Soft White | 1.40 | @ | 1.60 |
| No. 1 Mixed | .90 | @ | 1.00 |
| No. 2 Mixed | .60 | @ | .70 |
| Solid Ledger Stock | 1.55 | @ | 1.65 |
| Writing Paper | 1.05 | @ | 1.25 |
| No. 1 Books, heavy | 1.00 | @ | 1.15 |
| No. 2 Books, light | .90 | @ | .95 |
| No. 1 New Manila | 2.15 | @ | 2.30 |
| No. 1 Old Manila | 1.50 | @ | 1.60 |
| Print Manila | .50 | @ | .60 |
| Container Manila | .45 | @ | .50 |
| Old Kraft | 1.35 | @ | 1.40 |
| Common Paper | .25 | @ | .35 |
| No. 1 Mixed Paper | .25 | @ | .30 |
| Straw Board, Chip | .35 | @ | .40 |
| Binders Board, Chip | .35 | @ | .45 |
| Corrugated Board | .50 | @ | .60 |
| Overissue News | .45 | @ | .50 |
| Old Newspaper | .25 | @ | .30 |

### Domestic Rags (Old)

| | | | |
|---|---|---|---|
| White No. 1— | | | |
| Repacked | 4.25 | @ | 4.50 |
| Miscellaneous | 3.50 | @ | 3.75 |
| M. G. | 6.00 | @ | — |
| Thirds and Blues— | | | |
| Repacked | 2.00 | @ | 2.25 |
| Miscellaneous | 1.60 | @ | 1.80 |
| Black Stockings (Export) | 3.90 | @ | 4.25 |
| Roofing Stock— | | | |
| Foreign No. 1 | 1.25 | @ | 1.30 |
| Repacked | .80 | @ | .90 |
| No. 2 | .70 | @ | .75 |
| No. 3 (Roofing) | .30 | @ | .40 |
| No. 4 | .30 | @ | .40 |

## BOSTON

### Paper
(F. o. b. Mill)

| | | | |
|---|---|---|---|
| Ledgers— | | | |
| Sulphite | .07½ | @ | .12¾ |
| Rag content | .15 | @ | .30 |
| All rag | .38 | @ | .52½ |
| Bonds— | | | |
| Sulphite | .06½ | @ | .11½ |
| Rag content | .15 | @ | .30 |
| All rag | .36½ | @ | .65 |
| Writings | .06½ | @ | .20 |
| Superfines | .11 | @ | .31 |
| Book, Super | .06 | @ | .09 |
| Book, M. F. | .05½ | @ | .08¾ |
| Book, Coated | .08½ | @ | .18 |
| Coated Litho | .09 | @ | .12 |
| Label | .09½ | @ | .15 |
| Jute Manila No. 1 | .11 | @ | .13 |
| Manila, Sul. No. 1 | .04¾ | @ | .06¼ |
| Manila, Sul. No. 2 | .03¾ | @ | .04½ |
| No. 1 Kraft | .04¾ | @ | .06 |
| No. 2 Kraft | .03¾ | @ | .05 |
| (Less car-freight to Boston) | | | |
| Southern Kraft | .03¾ | @ | .04¼ |
| (F. o. b. destination in carfoad lots, f. o. b. mill in less than carload lots.) | | | |
| Common Bogus | .02 | @ | .02¾ |
| Delivered New England points | | | |
| News Print Rolls | 61.50 | @ | — |
| Straw Boards, rolls | .009 | | 52.50 |
| Straw Board in Sheets, basis 35s to 70s | 54.50 | @ | 55.00 |
| Filled News Board | 32.50 | @ | — |
| Chip Board | 30.00 | @ | — |
| Chip Board (Special) | 32.50 | @ | — |
| Single Manila Lined Chip | 45.00 | @ | — |
| Single White, Patent Coated Newsboard Bender | 65.00 | @ | 80.00 |
| Wood Pulp Board | 75.00 | @ | 80.00 |
| Binder Boards | 70.00 | @ | 75.00 |
| (F. o. b. Mill) | | | |
| Tarred Felts— | | | |
| Regular, carload lots | 65.00 | @ | — |

### Old Papers
(F. o. b. Boston)

| | | | |
|---|---|---|---|
| Shavings— | | | |
| No. 1 Hard White | 3.25 | @ | 3.75 |
| No. 2 Hard White | 2.60 | @ | 2.90 |
| No. 1 Soft White | 2.40 | @ | 2.50 |
| No. 1 Mixed | 1.10 | @ | 1.15 |
| No. 2 Mixed | .85 | @ | .90 |
| Solid Ledger Stock | — | @ | 2.25 |
| No. 1 Books, Heavy | 1.00 | @ | — |
| No. 1 Books, Light | .85 | @ | — |
| Crumpled Stitchless Book Stock | — | @ | .70 |
| Manila Env. Cuttings | 2.00 | @ | 2.25 |
| No. 1 Old Manila | — | @ | 1.00 |
| White Blank News | 1.50 | @ | 1.60 |
| Old Kraft | 1.30 | @ | 1.35 |
| Print Manila | .75 | @ | .80 |
| No. 1 Mixed Paper | .20 | @ | .25 |
| Overissue News | .35 | @ | .40 |
| Old Newspapers | .37½ | @ | .40 |
| Box Board, Chip | .50 | @ | .55 |
| Corrugated Boxes | .40 | @ | — |

### Bagging
(F. o. b. Boston)

| | | | |
|---|---|---|---|
| Gunny No. 1— | | | |
| Foreign | — | @ | 1.65 |
| Domestic | 1.60 | @ | — |
| Manila Rope— | | | |
| Foreign | 2.75 | @ | 3.00 |
| Domestic | — | @ | 3.50 |
| Transmission Rope | 2.35 | @ | 2.50 |
| Mixed Strings | .75 | @ | 1.00 |
| Jute Wool Strings | 1.00 | @ | — |
| Jute Carpet Threads | 1.00 | @ | 1.10 |
| Scrap Burlaps | 1.30 | @ | 1.35 |
| Scrap Sisal | — | @ | 1.50 |
| Scrap Sisal for shredding | — | @ | 1.75 |
| Wool Tares, heavy | — | @ | 1.40 |
| New Burlap Cutting | 1.75 | @ | 2.00 |
| Australian Wool Pouches | 2.50 | @ | 2.75 |
| Heavy Baling Bagging | 2.00 | @ | 2.10 |

### Domestic Rags (New)
(F. o. b. Boston)

| | | | |
|---|---|---|---|
| Shirt Cuttings— | | | |
| New White No. 1 | .08 | @ | .08½ |
| New White No. 2 | — | @ | .06 |
| Silesias No. 1 | .06 | @ | .06¼ |
| New Unbleached | — | @ | .09¼ |
| Fancy | .04 | @ | .04½ |
| Washable | .04 | @ | .04½ |
| Cottons—According to grades | | | |
| Blue Overalls | .06¼ | @ | .06¼ |
| New Black, soft | .04 | @ | .04¼ |
| Khaki Cuttings | .04 | @ | .04¼ |
| O. D. Khaki | .04½ | @ | .05 |
| Corduroy | .03 | @ | .03½ |
| New Canvas | .08 | @ | .08½ |

### Domestic Rags (Old)
(F. o. b. Boston)

| | | | |
|---|---|---|---|
| Canvas | .04½ | @ | — |
| White No. 1— | | | |
| Repacked | 4.75 | @ | 5.25 |
| Miscellaneous | 5.00 | @ | — |
| White No. 2— | | | |
| Repacked | .04½ | @ | .05 |
| Miscellaneous | .03½ | @ | .04 |
| Twos and Blues | 2.75 | @ | 3.00 |
| Thirds and Blues— | | | |
| Repacked | 2.25 | @ | 2.50 |
| Miscellaneous | 1.75 | @ | 1.90 |
| Black Stockings | — | @ | 4.00 |
| Roofing Stock— | | | |
| No. 1 | 1.25 | @ | 1.50 |
| No. 2 | .90 | @ | 1.00 |
| No. 3 | .85 | @ | .90 |
| No. 4 | .75 | @ | .85 |

### Foreign Rags
(F. o. b. Boston)

| | | | |
|---|---|---|---|
| Dark Cottons | — | @ | .95 |
| New No. 1 Shirt Cuttings | 8.00 | @ | 8.50 |
| Dutch Blues | — | @ | 2.00 |
| Lace Curtains | 4.50 | @ | 4.75 |
| New Checks & Blues | 4.25 | @ | 4.50 |
| Old Fustians | — | @ | 1.75 |
| Old Linsey Garments | — | @ | 1.12½ |

## TORONTO

### Paper
(F. o. b. Mill)

| | | | |
|---|---|---|---|
| Bond— | | | |
| No. 1 Sulphite | .12½ | @ | — |
| No. 2 Sulphite | .10¾ | @ | — |
| No. 1 Colored | .13½ | @ | — |
| No. 2 Colored | .11¼ | @ | — |
| Ledgers (sulphite) | — | @ | — |
| Ledgers, No. 1 | .36 | @ | — |
| Ledgers, No. 2 | .27 | @ | — |
| Writing | .09½ | @ | .10 |
| Book— | | | |
| No. 1 M. F. (carloads) | 7.50 | @ | — |
| No. 2 M. F. (carloads) | 7.25 | @ | — |
| No. 3 M. F. (carloads) | 7.00 | @ | — |
| No. 1 S. C. (carloads) | 8.00 | @ | — |
| No. 2 S. C. (carloads) | 7.75 | @ | — |
| No. 3 S. C. (carloads) | 7.50 | @ | — |
| No. 1 Coated and Litho | 13.25 | @ | — |
| No. 2 Coated and Litho | 12.25 | @ | — |
| No. 3 Coated and Litho | 10.00 | @ | 11.50 |
| Coated tinted | 14.50 | @ | — |
| Wrapping— | | | |
| Rag Brown | 4.95 | @ | — |
| White Wrap | 5.25 | @ | — |
| "B" Manila | 5.00 | @ | — |
| No. 1 Manila | 5.40 | @ | — |
| Fiber | 5.40 | @ | — |
| Kraft, M. F. | 5.90 | @ | — |
| White, No. 2 | 2.00 | @ | 2.25 |

(Delivered Toronto)

| | | | |
|---|---|---|---|
| News, per ton— | | | |
| Rolls (contract) | 61.50 | @ | 62.00 |
| Sheets | 67.00 | @ | — |

### Pulp
(F. o. b. Mill)

| | | | |
|---|---|---|---|
| Ground Wood | 30.00 | @ | 32.00 |
| Sulphite easy bleaching | 60.00 | @ | — |
| Sulphite news grade | 60.00 | @ | — |
| Sulphite, bleached | 72.50 | @ | 75.00 |
| Sulphate | 60.00 | @ | — |

### Old Waste Paper
(In carload lots, f. o. b. Toronto)

| | | | |
|---|---|---|---|
| Shavings— | | | |
| White Env. Cut | 3.00 | @ | — |
| Soft White Book Shavings | 2.85 | @ | — |
| White Blk. News | 1.60 | @ | — |
| Book and Ledger— | | | |
| Flat Magazine and Book Stock (old) | 1.40 | @ | — |
| Light and Crumpled Book Stock | 1.25 | @ | — |
| Ledgers and Writ- | | | |
| Solid Ledgers | 1.50 | @ | — |
| Manilas— | | | |
| New Manila Cut | 1.50 | @ | — |
| Printed Manilas | 1.00 | @ | — |
| Kraft | 2.25 | @ | — |
| News and Scrap— | | | |
| Strictly Overissue | .85 | @ | — |
| Strictly Folded | .85 | @ | — |
| No. 1 Mixed Paper | .65 | @ | — |

### Domestic Rags
(Price to mills, f. o. b. Toronto)

| | | | |
|---|---|---|---|
| No. 1 White Shirt Cuttings | .09¼ | @ | 10 |
| Fancy Shirt Cuttings | 06 | @ | 07 |

Advertising matter paged consecutively with text, has been removed here to lessen the bulk of this volume.